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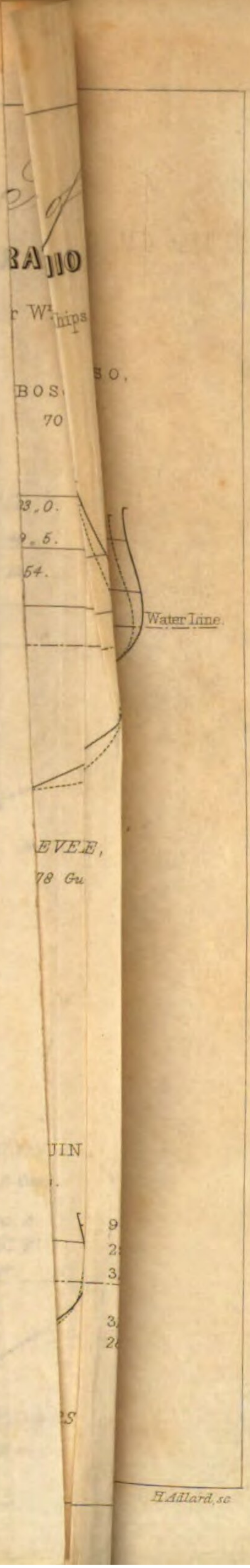
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MEMOIRS

OF THE

LIFE AND SERVICES

OF

REAR-ADMIRAL SIR WILLIAM SYMONDS, K^T^,

C.B., F.R.S.,

SURVEYOR OF THE NAVY FROM 1832 TO 1847:

WITH

CORRESPONDENCE AND OTHER PAPERS

RELATIVE TO

THE SHIPS AND VESSELS CONSTRUCTED UPON HIS LINES,

AS DIRECTED TO BE PUBLISHED UNDER HIS WILL.

EDITED BY

JAMES A. SHARP.

"Patriæ non nobis."

LONDON:
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1858.

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PREFACE.

By his Will, dated in 1852, Sir William Symonds directed that his papers, comprising various official documents, extracts of journals, and letters bearing upon the character and performances of his ships, should be published by his Executors without reserve; in order to vindicate his fame as a shipbuilder, and to clear his productions from the misrepresentations which so peculiarly beset them, during the whole term of his connection with Somerset House.

Under these circumstances, it has been the chief duty of the Editor to arrange the papers committed to his charge, in such a manner, and to add such notes and illustrations, as seemed best calculated to throw light on the exertions of this able and zealous public servant. Sir William left behind him a brief autobiographical Sketch of his professional career afloat, including his residence at Malta, which, after due consideration, has been adopted almost *verbatim;* since no further materials could be procured, to make it worth while to alter or extend it. Unfortunately, this Sketch ends, with the exception of a few meagre hints, at the most interesting stage of his useful life — his appointment to the high office of Surveyor of the Navy.

With respect to his services in this capacity, the Editor has endeavoured to supply the lack of direct

information, by inserting short accounts — collected from the most trustworthy sources — of Sir William's vessels, as they successively appeared; his voluntary trips abroad, for the benefit of Naval Architecture; and other particulars of a similar nature, down to the period of his retirement and death. The separate notices of his ships, it may be observed, might have been enlarged without much difficulty, had the restrictions laid on the size of the work permitted.

The Letters scattered through the narrative, as well as the bulk of the formal Correspondence, relative to the performances of the Surveyor's ships, which follows it, are for the most part given entire, agreeably to the express injunctions of Sir William Symonds. *He was more anxious, indeed, for the publication of the Letters in their present complete form,* than for that of the Memoir or any other part of the book; though it may happen that their value will not be so fully estimated by the general reader as by seamen. Competent judges must allow that, while these documents carry with them the strongest and most unimpeachable testimony to the merits of Sir William Symonds's works, they establish, on indisputable grounds, his claims to be admitted as the great modern improver of our Navy, and, therefore, justly entitled to the gratitude of his countrymen.

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*** *The Woodcuts are copies, by Branston, of Engravings on Zinc in "Naval Costumes."*

CORRECTION. — At page 135, lines 11–12, for "a pun for *Vernon semper viret,*" read, "a pun upon *Ver non semper viret.*"

MEMOIR

OF

SIR WILLIAM SYMONDS.

CHAPTER I.

1782—1811.

NOTICE OF THE SYMONDS FAMILY. — FIRST PORTION OF THE AUTOBIOGRAPHY. — MUTINY AT SPITHEAD. — SERVICES IN VARIOUS SHIPS. — MARRIAGE. — APPOINTMENT TO THE PIQUE.

SIR WILLIAM SYMONDS was descended from an old Suffolk family which, in the last century, was represented by his grandfather, the Reverend John Symonds, D.D., rector of Horningsheath (or "Horringer," as it is usually called) and Nowton, two livings near Bury St. Edmunds, in the gift of the Daverses of Rougham, to whom the Doctor was related. He married Mary Spring, second daughter of Sir Thomas Spring, Bart.*, of Lavenham, and the Hon. Merelina Jermyn (fifth daughter of Thomas, Lord Jermyn †); who, upon the

* His ancestor, Thomas Spring, was joint founder, with the De Veres, of Lavenham church. Another member of the family, having settled in Ireland, was ancestor to Thomas Spring Rice, now Lord Monteagle.

† Lord Jermyn, who succeeded his uncle, Earl St. Albans, in the Barony, 1683, had, with five daughters, co-heiresses, an only son, killed at sea; in consequence of which the title went to Lord Jermyn's next brother, Henry, (a remarkably handsome young fellow, about Charles II.'s court — according to the "Mémoires de Gram-

death of her brother, Sir William Spring, in 1769, without issue, became co-heiress to his estates.

By this lady Dr. Symonds had two sons, John and Thomas, and two daughters, Delarivière * and Anna Maria (who died young). John, the eldest son, born 1730, was educated at Bury Grammar School, which reckons Archbishop Sancroft, Lord Keeper North, Cumberland the dramatist, Bishops Thurlow and Tomline, and the present Bishop Blomfield, among its eminent men. From thence he proceeded to St. John's College, Cambridge, graduated B.A. in 1752 †, M.A. in 1754; acquired a fellowship at Peterhouse (not on the old foundation), through the interest of Bishop Keene (of Ely), and was created LL.D. by royal mandate, in 1772. The year before this, on account of his scholarship and literary attainments, he was chosen Professor of Modern History and Languages to the University, coming between Gray the poet and the late Professor Smythe. His lectures were usually delivered in Trinity College. He travelled much in Italy, where he paid a visit to the little republic of San Marino ‡; and on his return home he was the means of

mont," — afterwards created Lord Dover by James II.,) and part of his estates to his nephew, Sir Jermyn Davers, Bart. His eldest daughter, Mary, married Sir Robert Davers, Bart., M. P. for Bury; the second, Delarivière, married Sir Symonds D'Ewes, Bart., grandson of the antiquary; and the third daughter, Henrietta Maria, appears to have been named after Charles I.'s widow, who was privately married to Lord St. Albans.

* Delarivière Symonds married the Rev. John Casborne; and her grandchild, the Rev. W. J. Spring Casborne, inherits part of her property, consisting of the impropriate rectory of Newhouse-Pakenham, with the old manor house attached.

† He stood fourth among the Junior Optimes of that year.

‡ Dr. Gillies, the historian of Greece, in Seward's "Anecdotes" (under the head of "Cardinal Alberoni"), says, "The love of letters which distinguishes the people of San Marino, makes them regret that they are so seldom visited by literary travellers. Of our own countrymen belonging to this description, they mentioned, with much respect, Mr. Addison and Il Signore Giovanni Symonds, now Professor of History in the University of Cambridge. We were proud

introducing to the University her first teacher of Italian, Agostino Isola.*

Upon being appointed Recorder of Bury, Professor Symonds built himself (1773) a handsome seat in the Italian style, called St. Edmund's Hill, from the designs of one of the brothers Adam (the "dear Adelphi" of Garrick), and commanding the most beautiful prospect in Suffolk. He inherited this estate through his maternal grandmother, the Hon. Merelina Jermyn. Here he wrote, in 1778, "Remarks on an Essay [by Prof. Barron, of St. Andrews], entitled the History of the Colonisation of the Free States of Antiquity;" "Observations on the Expediency of Revising the present English Version of the Four Gospels and the Acts of the Apostles," 1789; and a continuation, on the "Epistles of the New Testament," 1794. One of these works is dedicated to the Duke of Grafton, then Chancellor of the University, and a Suffolk man, by whom Professor Symonds was much esteemed. With the Duke's family he continued to live in habits of intimacy until his death. Archbishop Newcome, in reference to his proposed corrections of the authorized version of the Scriptures, speaks of him as a man of real judgment and taste. †

He and his brother Thomas (says Sir W. Symonds), at a time when their parents were dying ‡, had been summoned to the bed-side of both, and informed that

of being classed with such men by the honest simplicity of these virtuous mountaineers, whom we left with regret."

* He published, "Pieces Selected from the Italian Poets," translated by gentlemen of the University, 1778; and in 1790, an edition of Ariosto's "Orlando Furioso," with notes.

† Prof. Symonds contributed Greek and Latin verses to the Rev. E. Clarke's "Luctus Acad. Cantab.," 1751, on the Death of Frederick, Prince of Wales (Nichols' "Literary History," vol. iv. p. 383); and wrote the inscription in St. Mary's, Bury, which identifies the tomb of Henry VII.'s daughter, Mary Tudor, Queen of France.

‡ The Rev. Dr. Symonds died 1757, after a residence of thirty-two years on his benefice.

all the property would be left to John, the eldest; and Tom was cautioned by his mother not to hang upon his brother. Being a very spirited boy, he took this injunction so much to heart, that he left the house immediately, with his clothes tied in a bundle over his shoulder, and keeping his intentions to himself, trudged off to Harwich, where he was invited to try his luck at sea, by the captain of a vessel of war, who had been staying with his father. He was not heard of again until he had become a Master and Commander in the Navy, when he paid a short visit to his brother. On his promotion to the rank of Post Captain, he returned to Bury, 1771, and married Miss Mary Noble, by whom he had four children.

Captain Symonds commanded the Solebay and Charon, during the American war of independence. In January, 1780, off Kinsale, in the Charon, 44, he fought the Comte d'Artois, a French 64, which struck to him on the approach of the Bienfaisant, Captain Macbride. He was afterwards employed in conjunction with Lord Cornwallis's army, against the Americans, in York River, 1781, where he and his crew were ordered to land and serve the batteries. The Charon being converted into a floating battery, was blown up by the enemy's red hot shot; and at the capitulation which followed after Admiral Greaves's * unsuccessful attempt to relieve the General by ascending the Chesapeake, all her ship's company were made prisoners of war with the army.

On his return to England after the peace of 1782, Captain Symonds, then a widower, married his second wife, Elizabeth Malet, a celebrated Devonshire beauty, daughter of Hugh Malet, Esq., of Iddesleigh †, near Ash, the scion of a very ancient Norman stock. By

* The Admiral's failure with the French fleet induced Mr. Clerk of Eldin to begin writing his well-known work on "Naval Tactics."

† He was also the owner of Meavy, near Tavistock, until Sir M. Lopes bought it, 1806.

her he had seven children — three sons (all in the Navy), and four daughters — viz. Thomas Edward, born 1781, a retired Rear-Admiral of 1846; *William;* John Charles, a Commander of 1814, who died in 1840; Mary Anne Theresa, married, 1801, to Captain John Whitby, Admiral Cornwallis's flag Captain; Juliana, unmarried; Sophia, married to William Reynolds, Esq., of Milford House, Hants; and Merelina, married to Chief Justice Tindal. All the daughters, except Juliana, are dead.

Captain Symonds commanded the Diadem guardship, in Hamoaze, until 1788, when, at the invitation of his brother, Dr. Symonds, he carried his family to live with the Recorder (as he was usually called) at St. Edmund's Hill. There he remained until his death, in 1793; soon after which his widow* retired with her children to her own county, Devonshire, contrary to the wishes of Dr. Symonds, who from this time gradually lost the interest he had felt in his brother's family; and when he died, 17th February, 1807†, those who "remained near him fared the best." One estate, the manor of Great Whelnetham, which he inherited, he bequeathed to his niece, Mrs. Benjafield.

William Symonds, the second son of Captain Symonds, and the subject of this Memoir, was born at Taunton, in Somersetshire, 24th September, 1782, before his father's return to Bury St. Edmunds. The particulars of his early life are sketched by himself as follows: —

I was educated (he says) by Mr. Blomfield, of Bury (father to Bishop Blomfield), preparatory to my going to the Grammar School in that town, of which the

* Mrs. Symonds contracted a second marriage with Lieutenant-General Farmer, of the Royal Marines.

† There are tablets to the memory of Dr. Symonds and his brother, in Pakenham church, Suffolk.

Rev. M. T. Becher was then master*; and after my family went back to Devonshire I was instructed by a clergyman of Holbeton, near Plympton, in that county, with whom I remained until 1794, when I commenced my career in the Navy on 24th September, by joining the *London*, 98 guns, Captain L. W. Halsted, in Torbay. She belonged to Lord Howe's fleet, and bore the flag of Sir John Colpoys. My half brother, Jermyn-John, was one of her lieutenants. The London† sailed particularly fast at times. In April, 1795, she took the Jean Bart corvette, with despatches on board; and about the same time she assisted the Hannibal at the capture of La Gloire and La Gentille, two 40-gun frigates. In Lord Bridport's indecisive action, of 23rd June, 1795, off L'Orient, I served two guns on the London's quarter-deck as powder boy.

The fleets were in sight of each other for two days before; but the light wind prevented the British fleet from bringing the French to action sooner. The Alexander, which had been captured by a French squadron in the winter of 1794, was retaken, and the Tigre and Formidable‡ were made prizes. At that time they were considered very large 74-gun ships. The Formidable having caught fire, Captain Cole of the Révolutionnaire,‡ was sent to take possession after she had struck, when the enemy attempted to abandon the ship to save themselves; but Captain Cole informed them that he would take no person on board until the fire was put out, upon which it was extinguished immediately. It was believed that a small degree of presence of mind would have given the Admiral the

* He was Head Master from 1788 to 1809.

† She was built at Chatham, 1766.

‡ The Tigre was Sir Sidney Smith's ship at the siege of Acre, 1798. The Formidable, with her name changed, figured as the old battered Belleisle, at Trafalgar. The Révolutionnaire, 44, was a prize to the Artois, &c., in 1794.

whole French fleet, and that the port of L'Orient, batteries, &c., might have fallen into his hands also. My half-brother, Mr. Jermyn-John Symonds, the First Lieutenant of the London, was made prize-master of the Tigre, and went home, promoted to the rank of Commander.

Soon after this action, Admiral Cornwallis joined Lord Bridport with five sail of the line and two frigates, after running the gauntlet of the enemy's fleet of thirteen sail of the line and seventeen frigates, &c. He was declared a hero for his grand Retreat, and the French christened him "déterminé." With the men his common name was "Coachy," or "Mr. Whip," on account of his wig, his ruddy face, and a twirl he used to give to his fingers.

In the next year, 1796, the London was attached to Admiral Cornwallis's squadron which blockaded Richery, in Cadiz. He would not come out, although the Hebe frigate was often sent in to proclaim our inferiority.* Being ordered home, we reached England in little more than three days, in a gale of wind right aft. When making the land, which was very difficult from thick weather, the Admiral gave a strong proof of his confidence in his Master, in the Royal Sovereign, which was nearly fatal to the London.† She being rather to windward of her next a-head, the signal was made to keep station, and was repeated, even when the signal was made from her, "Breakers to leeward!" Soon after she had borne down into her

* Richery, who commanded a division of the Brest fleet, afterwards ventured out of Cadiz, and made, as usual, a successful raid, getting safe back into port with plenty of prizes.

† The Royal Sovereign, 100, was launched 1786, at Plymouth, and the London, 98, launched 1766, at Chatham. The disadvantage which Cornwallis's little squadron laboured under, in his celebrated retreat above mentioned, first led Mr. Seppings and others to advocate thg *round* stern, as a form that would admit of arming this part of the ship better.

station, she fell off two points, and immediately struck on the Buller Bank. The Cæsar was also on shore, but was got off shortly afterwards. The London struck with such violence, that a sentry between the decks was almost killed against the beams. Her ladders were in an instant unshipped, and very soon the rudder was unhung and retained only by its chains. To remedy this disaster, we placed the rudder upon the skids in the waist; a lower cap was fitted to the rounded heel, and the square hole cut through to the external, in order to receive the stern post below, where it was held by means of hawsers, leading under the ship's bottom and set up through the hawse holes; the upper part of the rudder being secured by span-shackle bolts and lashings. By this means the ship was steered safely into Portsmouth harbour.

In 1797, the Mutiny broke out in the Channel fleet, which, when it spread to the Nore, brought the 3 per cents. down to 45: its history and causes are sufficiently well known. Though fostered by the numerous bad characters at that time pressed into the Navy, — the sweepings of the streets and prisons, — it was provoked, in the first instance, by the abominable system of paying and feeding the men, who had with great reason complained of bad provisions, short weight and allowance, as well as of harsh discipline and other admitted grievances. At its first appearance Admiral Colpoys was in London. But, as the Government had grounds for suspecting, from anonymous information, that it was about to burst out again, all the commanders and officers of the fleet at Spithead were forthwith ordered to join their respective ships.

Admiral Colpoys (says Mr. Symonds) brought down

with him Commander E. W. C. R. Owen *, who had recently been promoted from being first Lieutenant of the London, and in whom the Admiral had great confidence. The London, Marlborough, and Monarch were anchored at Spithead; but the rest of the fleet, fourteen sail of the line, were at St. Helen's, to which they had been sent upon the settlement of the first outbreak in April, when the crew of the London showed great forbearance and good conduct.

The Admiral embarked; and on Sunday, the 7th of May, while the Articles of War were being read after divine service on the quarter-deck of the London, the Master, Mr. John Douglas, observed to the Admiral that something wrong was going on among the distant ships at St. Helen's, as a procession of boats was moving through the fleet from ship to ship, and then towards the three ships lying at Spithead. The Admiral immediately harangued the crew, complimented them on their former good conduct, and desired them to go to their berths, advising them to remain quiet below. They accordingly went down to the lower and middle decks; the ports were barred in; and, from this moment, Commander Owen appeared to have the direction of everything. The marines were placed under arms; the officers stationed in different parts of the ship to prevent any one from coming up from below; the guns on the quarter-deck and forecastle loaded with grape and canister shot. The Admiral, determined as a rock, armed himself with his sword and a brace of pistols.

Very soon the string of boats, containing delegates, reached the Marlborough, of which the crew appeared to have got possession, in defiance of her commander, Captain Nichols, a man of high spirit, who was sent ashore. The London's men now became

* The late Admiral Sir E. Owen was a volunteer on this occasion. The flag Captain, E. Griffiths, died 1833, as Admiral Sir E. Griffiths Colpoys.

restive below; her ports were opened, and several of the crew were disposed to force themselves up the hatchways, in spite of the warnings to ascend at their peril, given by officers and marines dispersed along the main deck to keep them down. Our chaplain, the Rev. Samuel Cole *, the surgeon, Mr. Smith, and some other officers, handed all the muskets, &c., which could be found between the beams in the wardroom, over the quarter galleries, to the poop; but many of the people below had also armed themselves from the gunner's store-room, and were becoming impatient and violent.

At length some musket shots were fired up through the hatchways to intimidate us; upon which I and the other young mids, fourteen in number, were ordered to throw the hammocks, stowed amidships on the booms, into the waist, and then to pile them on the gratings over the hatchways, in order to deaden the effect of the balls, and to make it more difficult for those below to force the hatchways, as well as to leave fewer openings to guard. As the men also showed a disposition to get through the ports and upon deck, from the outside, midshipmen were sent down with rigging knives to cut the port ropes. This was a service of no small risk, — indeed of danger, from which we were glad to retire; since the ports were forced out by capstan bars, &c., and muskets fired to alarm us and to draw the attention of the delegates, who passed us on their way to the Monarch, which they gained possession of. She was not far from the London, and we imagined that they were weighing anchors, and that their object was to warp alongside of us to rescue our men. However, though the string of boats made an attempt to approach us, on seeing our state of preparation to receive them, they retreated. By this time three of

* Afterwards Chaplain to Greenwich Hospital. He was brother to Sir C. Cole, who took Banda Neira, and to Capt. Cole of the Révolutionnaire, the friend of Pellew and the Duke of Clarence.

our men, — William Barker, John Petrie, and Richard Collins, — in attempting to get upon deck, had been wounded by Lieut. Bover, Mr. Musgrove, surgeon's mate, and Lieut. Simms, a marine officer; and one marine, when giving up his arms, had been shot through the eye by one of the sailors, who called him a coward for yielding. Some of the crew below had now become drunk, and so riotous that they broke open the magazine; and one man, William Chatwood, a forecastle man, so far lost his senses, that he was on the point of setting fire to the magazine. Others were loading the two foremast guns on each side of the middle and lower decks. They were pointed aft, with full elevation, and crowbars lashed across the muzzles, in order, as the men said, to sweep the deck of the officers. When all was ready, they hailed from below, desiring that the ship might be surrendered to them. The Monarch appeared to be warping towards us. A voice called out "We surrender." The Admiral was almost frantic at hearing this exclamation; but he was obliged to give in, and, with several of the officers, threw his pistols overboard as soon as he learnt that the marines had laid down their arms.

The ringleaders and masses of the people now forced their way up, and a man, named Bryan White, collared the Admiral, who was fairly mobbed, and was seen now and then rising in the press of the crowd, smiling with contempt and disdain, while they taunted him, saying, "You are a disgrace to British seamen," "No British seaman will ever serve under you again," &c. The delegates then came on board; and for a length of time the destruction of every officer was threatened, except Mr. Smith, the surgeon, and Mr. Ford, a master's mate. They moderated somewhat when the delegates assembled; but Lieut. Bover, who had incensed the crew against him by his activity on the main-deck during the struggle, and by having, as above mentioned, wounded one of the

crew with his own hand, was still in danger. A yard rope was placed round his neck and the rope hauled taut, which partly *lifted him.* However, by using some force and a good deal of persuasion, he was rescued from this fate, and, with the most active officers in the affray, put in irons; while the Admiral, Captain, ward-room officers and midshipmen were all guarded in their respective apartments.*

A delegate, John Fleming, was next appointed by the crew. Here is his letter of the day following, to the Committee of Delegates, on behalf of Lieutenant Bover, which had a most salutary effect on all the mutineers: —

"You have, I presume, read the address of the ship's company (of which I am a member) to you, recommending me as their representative in future. They have further given me most flattering proof of their opinion of my abilities to act as a man and a Christian ought to do. Under these circumstances, I flatter myself you will hear me with patience, as I am partly convinced your own sentiments, when compared with mine, will join me in saving a deserving character from ruin and destruction. I shall not dwell on the particulars of yesterday; they are, I am confident, still warm in your memories; but only recall your attention to the behaviour of our brother Valentine Joyce. His intrepidity in rescuing the unfortunate gentleman from the hands of an enraged multitude, will, I am sure, make a deep impression on your minds, and will, I hope, influence you to act in a manner worthy the character of Christian and British seamen.

Thus much my brethren, for preface. Permit me now to speak for that ship's company, whose confidence I enjoy. In the first place, had they followed the momentary impulse of passion, and wreaked their vengeance on that unfortunate gentleman, a few minutes would have brought to their recollection the amiable character he always bore amongst them, and I am confident would have embittered the latest moment of

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* Lieut. Bover was saved by the interference of Sir. J. Colpoys, who declared that Mr. Bover only obeyed his orders, and that he himself only did his duty; which so irritated the men that they were about putting the rope round the Admiral's neck. See his letter to the Board, in Giffard's "Deeds of Naval Daring," 1854. Bover was promoted by Lord St. Vincent for his intrepidity. Brenton says, "his friend Bover" was saved by Mark Turner, a delegate.

their lives. Now, my brethren, your general cry is *blood for blood!* Do you mean that as a compliment to us, to assist us in following error after error? If so, it is a poor compliment indeed. Or do you, let me ask you, think it justice? I hope not. If you do, pray from whence do you derive your authority to sit as a court over the life of the meanest subject?

"The only answer you can give me is, That you are authorised by your respective ships' companies. But is that authority sufficient to quiet your consciences for taking away the life of a criminal? much more that of a deserving worthy gentleman, who is an ornament to his profession in every respect? I can almost safely say, No. But if you are influenced by your ships' companies, contrary to your own opinion, [remember that] I am but a single individual among you, and before this hand of mine shall subscribe the name of Fleming to anything that may in the least tend to that gentleman's prejudice, much more his life, I will undergo your utmost violence, and meet death with him hand in hand. I am nevertheless as unanimous as any member of the fleet for a redress of your grievances, and maintain that point with you all, so long as you are contented with your original demands; but the moment I hear of your deviating from those principles, that instant I become your inveterate enemy.

"You see, brethren, I act openly, and am determined to support it; as I will never form a part to do injustice to my country; and for the future I shall expect that whatever comes before us shall be only conducive to the much-wanted and desirable end of restoring this fleet to the confidence of our injured country. Let these be your aims, and you may depend upon every support from me and this ship's company; and be assured that the life and character of Mr. Bover shall always remain inviolate in our hands; and we think any step taken to the contrary highly injurious to ourselves as brothers of this community.

"We expect your answer this night; and I beg leave to remain, yours most sincerely,

"JOHN FLEMING, of the London."

Answer to the ship's company of the London.

"Having heard from John Fleming, your delegate, the great regard you bear to Lieut. Bover, and being willing to agree to his arguments set forth in his behalf, We, therefore, are of opinion that the said Mr. Bover remain at your discretion, as we are of opinion that you are the only injured people; and

find that he was compelled to act according to the orders of Admiral Colpoys, whom we think capable of everything that is base and dishonourable. Given under our hands on board His Majesty's ship Mars, this 8th of May, 1797."

(Signed by the Delegates.)

John Fleming's temperate and, under all the circumstances, excellent letter, proves that the London's ship's company were well-disposed both to their officers and to their king and country.

Soon after the London was given up to the mutineers, and the storm had somewhat subsided, her three wounded men were sent to the hospital. Mr. Musgrove, the surgeon's mate, who had, under orders, wounded one of them himself from the main-deck, very adroitly jumped into the boat and accompanied them. Some days were spent by us in a most anxious state of suspense. No letters were permitted to leave the ship unknown to, or unopened by, the delegates. Several officers who were threatened by the crews, remained in hourly expectation of losing their lives. Others planned contrivances for effecting the Admiral's escape. The delegates meditated to try him for his life; but Mr. Cole, the chaplain, having been allowed to go on shore, and meeting them at the Admiral's or Commissioner's house, he artfully induced them to consent to send the Admiral on shore, to be tried by the law of his country; adding, that if he had fired the first shot (of which they had persuaded themselves) they would have the law on their side. At length the delegates agreed to let the Admiral go on shore to be tried, and to turn all the offending officers out of the ship. They were accordingly landed; the others most heartily wishing to have been included in their number.

The London, with the Monarch and the Marlborough, was worked out to St. Helen's, where the rest of the fleet lay. We soon learnt that the three wounded men had died at the hospital, and preparations were

made to bury them. Seventy men were selected as mourners at the ceremony. All the Cyprians of Portsmouth and Gosport dressed in *white* for the occasion; and a subscription was made of half a guinea a man to pay the expenses of these rites out of some prize-money which was due, and which was paid by Lindergreen. A stone to their memory still exists in Kingston churchyard.* It is worthy of remark that not one of the seventy men returned punctually to their leave, for which they were all unmercifully punished in the following manner:—A crowbar was fastened to the end of a yard rope with several shot attached to it; the delinquent was then set astride on the bar, and tied under his arms to the rope in that position. A toggle being fastened to the rope above his head, he was hoisted up to the block at the yard-arm, and let go with a tremendous souse into the sea. This ceremony was repeated three times; so that when taken on board, the man was scarcely alive.

An examination into the particulars of the mutiny on board the "London" was instituted at the Commissioner's house, where the principal evidence was the chaplain, Mr. Cole. He declared that the *first shot* was fired by the *ship's company* from below, thus clearing the Admiral and the officers; upon which the delegates returned on board, showering curses on the parson's

* The Governor (according to Slight's "History of Portsmouth") would have stopped the procession by force, but Sir J. Carter, a magistrate of much influence, gained permission to let the men walk, and accompanied them himself to church. Everything went off peaceably. On their return, they paid their respects in form to Sir John, who inquired about the Admiral, then still on board, in daily fear of being hung at the yard-arm. He had actually made a will, leaving £20 a-year to each widow of the men killed. The next morning he was quietly smuggled on shore (pursued by the boats of the Mars), and delivered to the keeping of Sir J. Carter, who gave a receipt for his body, to be shown by the sailors to their shipmates. The Admiral told George III. that he owed his life to Sir J. Carter. He died Governor of Greenwich Hospital, in 1821.

head, and swearing that nothing should prevent their tarring and feathering him. A few days afterwards, I was sent, as officer of the jolly-boat, to bring fresh beef off, — a sign that the mutineers were becoming cool. While pulling ashore they often threatened me for not steering straight. Upon landing, I ran to Portsea, where my friend Mr. Cole lived, to apprise him of his danger; and thus I proved a marplot, for he was really prepared to go on board; and the crew of the London, expecting he would return in this boat, had got ready tar and feathers, with a grating to launch him upon, and a boat-hook and hammock for a sail.

In the course of a few weeks, which seemed an age to us, this horrid mutiny was happily assuaged by the joint endeavours of Lord Howe and Lord Bridport.* The Duke and Mars were the last ships to yield to reason; and nothing but a threat to sink them had the desired effect. Captain John Child Purvis, who took the L'Aigle, 1782, joined the London; and the crew, though often riotous and rude, gradually came to. She sailed for Torbay, where the Channel fleet rendezvoused.

While there, I was discharged from her into the *Cerberus* frigate, commanded by Captain John Drew, a most active cruiser, an excellent seaman, and a good man; who was drowned at a most unfortunate moment for his future prospects. We arrived in Cawsand Bay in a gale of wind, accompanied by two fine ship privateers, Le Renard and L'Epervier, prizes captured on the French coast, mounting 18 and 16 guns, which ran up Hamoaze immediately. Being anxious to report his arrival, the Captain shoved off in a boat and hoisted his lug-foresail and mizzen, to run over the "bridge" between Mount Edgecumbe and Drake's

* The delegates used to meet at the "Three Tuns" tavern, in Green Row; and "kept Lord Howe waiting on the staircase while they deliberated on his proposals."—*Slight's* "Hist. of Portsmouth."

Island, the wind blowing hard from S.W. with a strong ebb tide.

It was my duty to see the fore-topsail furled, and I was in the fore-top when the boat shoved off. As officer of the boat, I was called to account by the First Lieutenant for being out of the way; and was desired to be prepared to go on shore in the second cutter after the people had dined. All my messmates were either in prizes or in the Captain's boat, and I dined alone. On shoving off, I steered for the Barbican at Plymouth; and between the Sound and Mount Edgecumbe we discovered a white-painted boat, bottom upwards. Bags, trunks, cocked hats, sticks, &c., were floating around; and it was but too plain that the whole party, consisting of Captain Drew, Captain Pulling (a passenger) and his black servant, Messrs. Drew, the captain's nephews, Mr. Poore and Mr. Daly, midshipmen, had been upset. Mr. Daly had been sent instead of me, when I could not be found; and in this way I escaped. I tried in vain to right the boat and tow her off, but every rope broke; and with heavy hearts we carried back the evil tidings to the ship in Cawsand Bay. Captain Drew was so beloved, that there was scarcely a dry eye in the ship; and, with few exceptions, all hands went into mourning for their worthy commander. The day after, we found out that two men, Marsh and Arthur, were saved; having with great difficulty got ashore at Mount Edgecumbe, among the rocks, much bruised. They met with kind hospitality from the steward at Lord Mount Edgecumbe's house.

Captain James Macnamara was appointed to succeed Captain Drew; and, under him, the Cerberus was ordered to Guernsey, where a gale of wind was nearly fatal to her. Having anchored in foul ground, she was discovered to be drifting or driving across the bows of the Calcutta (formerly an Indiaman). To prevent the threatened destruction of both ships from collision,

we cut our cables, and just cast clear of the Calcutta as she was pitching, bows under. Fortunately a pilot, observing our situation, jumped on board when in the act of casting, and ran us through the Little Russel and through the Singe (or Swinge as they call it) — a most frightful passage in a gale, between Alderney and the Caskets — and thus saved the ship; for no one on board knew anything of that navigation.

She returned to Portsmouth, and was supplied with new cables and anchors.

The Captain and First Lieutenant (Stacpoole) were celebrated as good shots; and their practice on board proved that both of them could split a lath, kill a fowl when putting its head out of a coop, or hit the ace of diamonds. They were good officers, and the ship was kept in high order; but they did not always agree.*

About this time (Oct. 1797), my half-brother, Jermyn-John Symonds, who was appointed to command the Helena, of 14 guns, applied for me; but I was seized with small-pox, and went to Haslar Hospital. While there the Helena sailed, and, in company with the Lion, 64 guns, and a convoy, was sent in chase of a Dutch man-of-war brig. At sunset she was seen with a heavy press of sail coming up with the Dutchman; but in the night she upset in a squall, and all hands perished.† The Lion passed through the wreck of her boats, spars, &c., though from the state of the weather, she was unable to lower a boat. This was another narrow escape for me.

In the summer of 1798, when the Irish Rebellion broke out, the Cerberus was employed in a squadron

* Both were noted duellists. Captain Macnamara, in 1802, killed Colonel Montgomery in a duel on Primrose Hill; and was miserable for the rest of his life. Stacpoole (who had been shipmate with the Duke of Clarence) was killed at Port Royal, in 1814, when Captain of the Statira, by an officer whom he had challenged.

† A tablet to the memory of Captain J. J. Symonds was placed in Pakenham church, Suffolk.

under Captain Faulkner, of the Diana, on the west coast of Ireland; and was detached to Killala in the north of Mayo, where the French had effected a landing. On the 22nd August, four frigates, carrying 1150 French veteran troops under General Humbert, appeared in Killala Bay. Seeing English colours hoisted, the collector of customs boarded them, and was not allowed to return. They landed with four field pieces, drove back the yeomanry hastily collected against them, and marched to Killala, which they made their headquarters. Here they issued proclamations, headed "Liberty, Equality," and so forth, in the usual style; and put such Irish recruits as offered themselves into uniform. Five days after, they advanced to Castlebar, where they were met by General Lake and some companies of raw militia. The militia ran away at the first shot, leaving the town to be defended by a steady few of the Prince of Wales's Fencibles, under Lieut. Sills, who resisted to the last. This fight was nicknamed the "Castlebar Races." Humbert made the most of his easy victory; proclaimed the "Irish Republic;" and about a month later surrendered to Lord Cornwallis, brother of the Admiral. It was the only footing ever obtained by the French in the United Kingdom during the revolutionary war.

Captain Macnamara was not idle. The French vessels left behind,—a brig, sloop, and cutter,—were moored in the river off the town, and employed to hold the gunpowder and other ammunition of the French troops. Stacpoole, with the boats, soon tried the effect of sharp cutlasses on the soldiers left to guard the vessels; cutting them down and driving them overboard. The vessels were then blown up within pistol-shot of the town, of which the French held possession. Some prisoners were brought on board, dreadfully scalped and lacerated. The burning vessels, however, were nearly fatal to the Cerberus, as the current bore them down

right towards her; but fire-grapnels and boats fortunately cleared us.

The Cerberus belonged to the Irish station; but Macnamara, a descendant of the admirals of Munster, whose name signifies "Son of the Sea," longed for activity, and did not like cruising off Tory Island, on a dreary part of the north coast. He accordingly pretended for several days that strange vessels were to be seen to the southward; and the ship was continually put in chase of them until we were off the coast of Spain and Portugal, then considered the best station for taking prizes. In this, of course, the Captain was guilty of disobedience of orders and desertion of his post; but happily for him, a gallant attack on a Spanish squadron served to divert the wrath of the Admiralty, who would otherwise have called him to a severe account.

At sunset one evening, 20th October, 1799, a fleet was discovered to leeward; and it was soon observed that it consisted of eighty sail of transports, bound to Corunna, in charge of five Spanish men-of-war. As soon as it was dark, Cerberus, unseen, bore up to the strangers, shaping her course for the men-of-war, three frigates and two ships, all lying close together, their captains having been assembled on board the Commodore's ship. They had lights hoisted at the peak which the Cerberus, on approaching, imitated; and when near the largest ships, she opened her fire. They were caught in a trap, not being able to distinguish her from their own vessels; and when the lights of any of the Spaniards were put out by musketry, she was instantly fired at by all the rest. By this excellent *ruse*, the Cerberus, taking care to keep her lights always shown, was preserved from harm. She received only a few random shot, and had no person injured.

An hour before daylight, when the Spanish squadron was much disabled, Macnamara — as the odds would have been rather against a single ship, and she a small

one, so soon as the Spaniards discovered their error, — hauled into the middle of the convoy, and took possession of the largest of them, but finding that they were light transports, he sent Stacpoole to set fire to her, putting her head towards the thickest of the throng, first taking all the people out of her. They were not a little surprised to find that so small a ship had inflicted such disaster upon a whole squadron.

When the day dawned, the Cerberus had got on the weather bow of the Spaniards, and viewed at a safe distance the crippled state of her adversaries. The ship in flames burnt to the water's edge; but the others, keeping out of the way, escaped unhurt. It was afterwards reported that two of the frigates were so damaged that they could not go to sea again, and that all received very considerable injury.* The only harm done to the Cerberus was a shot in her main yard, and another in one of her quarters. We landed the crew of the burnt transport near Cape Ortegal. They declared that the captains of the Spanish men-of-war ought to be all hanged for their cowardice.

Captain the Hon. A. K. Legge took me with him, in the *Cambrian*, 44, a beautiful frigate, built 1797, at Portsmouth. She was a thorough man-of-war, and Legge, a good officer and perfect gentleman. We were attached to the Channel fleet; part of the time under Sir Edward Pellew (afterwards Lord Exmouth), who, with Major General Maitland, had charge of the expedition for co-operating with the Chouans in Brittany. They were well supplied with money and arms by this

* The Spaniards were thrown into such confusion that, towards the close of this unequal engagement, they fired whole broadsides *without shot*. See James's "Naval Hist." vol. ii., who says they numbered five frigates and two corvettes. In this neighbourhood, off Vigo, only five days after, the Naiad, Captain Pierrepont, and her two consorts, captured the Golden Thetis and Sta. Brigida, with specie on board, which filled sixty-three waggons, and gave each Captain 40,371*l.*, and each man 182*l.*

country; but it frequently happened that when boats loaded with these supplies had lain all night in the river Morbihan, the treasure and arms were brought back again; Pichegru, Georges, and the other Chouan leaders being unable to take possession of them.

The Cambrian was also stationed off Corunna, and made several prizes in consequence. In 1800, Captain Legge was sent as Commodore to attend on George III. and the royal family at Weymouth. He had under his orders the St. Fiorenzo* and Siren frigates. The royal family often took a trip to sea in the ship. I was made sidesman, with Toup Nicolas, Hyde Parker, and Richard Wilbraham; and being very useful in our attendance, our names in time became familiar to the royal party. The old King was fond of everything about a ship, and of every manœuvre; and gave us repeated proofs of his affability. On one occasion, going into the gun room, he took the Princess Amelia into the First Lieutenant's cabin, to look at the furniture; and when she was inside, he very adroitly slipped out, and shut her in; calling out to the first lieutenant, "Mr. Corne, Mr. Corne, here's Amelia in your cabin!"

In September of this year, a race was run between the yachts Liberty and Lulworth Castle, belonging to Mr. H. C. Sturt, of Critchill House, and Mr. Weld; when a serious adventure happened to the former gentleman. The Liberty had a little boat astern, which her owner perceived to impede her sailing so much, that unless it was cast adrift she would lose the

* The history of the St. Fiorenzo, 40, was rather singular. As La Minerve, she had seen the bottom of the sea, having been sunk by the English batteries at San Fiorenzo (Corsica), Feb. 19, 1794; but was weighed again, and commissioned in October of the same year. Sir H. B. Neale, her captain, gave a grand banquet, on board, to the Royal family, in honour of Nelson's victory at the Nile. She took the Piedmontaise in 1808, when the heroic Captain G. N. Hardinge was killed.

race. They were outside Portland, about ten leagues from Weymouth, and the sea running high. He ordered a boy to get into the boat and take her ashore. The boy was afraid; and when the men on board refused, Mr. Sturt, who had been a Lieutenant in the Navy, jumped in himself, cut her painter, and took to the oars, leaving the race to be decided by the people on board. The Liberty won it. But in the meantime, the tide swept Mr. Sturt in his frail bark, among the breakers of the Shambles, where she was turned over and over several times; he as often got on her bottom or baled her out, until she again upset. To prepare for the worst, with great presence of mind, he managed to pull off his clothes, except his nankeen trowsers and stockings, wrote "Charles Sturt, Brownsea, to his beloved wife," with a pencil on a slip of paper, which he put in the case of a valuable diamond watch which his wife had given him, and fastened it under his trowsers. For several hours he was in the greatest peril, and when knocked overboard, had to swim for his life after the boat, the gannets and other sea birds threatening him all the while. Providentially, when it was nearly dark, some transports which had sailed in the morning with troops for Guernsey and Jersey, returned that way, being obliged to put back by contrary winds. All passed him but the last one, the Middleton, when a mate on board her caught sight of his boat, a mere speck on the water, full three miles to leeward. Four men instantly shoved off, and guided by the line of sight, after a long row came upon Mr. Sturt when he was utterly worn out and ready to sink, pulled him into their boat, and thus rescued him almost by a miracle from the most imminent danger. It is worth mentioning that in the February of the preceding year, Mr. Sturt had in his own boat helped to save the lives of four men from a wreck near his seat, Brownsea Castle, Poole. His narrow escape on this occasion made a great

noise, and excited sympathy in every quarter. The king was very anxious about him, and ordered torches to be shown all round the coast; and when he went to the play, which was his custom every night, he desired his attendants to report when anything was heard of Mr. Sturt.*

In February, 1801, Mr. Symonds passed his examination for a Lieutenant, and rejoined his ship at Portsmouth. She was ordered out to St. Helena to bring home a convoy of East Indiamen; but his Captain consented to lend him to a ship at home, as he had reason to expect promotion, having been desired by his patron, Sir John Colpoys, the acting First Lord of the Admiralty, to keep in the way. He was accordingly lent to the *Endymion*, Captain P. C. Durham †, who was about to take a short cruise to Lisbon and back.

Captain Durham (he says) had spies, who carried him all sorts of information; and one day, being in my berth with the other midshipmen, who were talking a little petty treason, I discovered Sambo, the Captain's black servant, lying on a chest outside, listening, but pretending to be asleep. A large can of beer near me afforded so tempting an opportunity, that I could not resist the pleasure of sousing the listener, who received the full contents over his woolly head. This circumstance involved me in a scrape, which I never got the better of in that ship, and no doubt the matter was exaggerated and misrepresented to the Captain.

Soon afterwards I was sent prize-master in a French

* Mr. Sturt died 1812. See the account in Hutchins's "Dorsetshire," vol. ii. p. 186.

† Admiral Sir P. Durham, when a young midshipman, was one of the few saved out of the Royal George, 19th Aug. 1781. The Endymion was a fine model French 50-gun frigate, reduced to a 44 in 1839.

privateer cutter which the Endymion had captured off St. Vincent; but somehow no activity, zeal, or good conduct on my part had power to allay the feeling against me. On her return to Spithead, the Endymion was ordered to St. Helena, but Captain Durham could not be persuaded to discharge his supernumerary into the guard-ship, although an assurance reached me that a few posts would bring my promotion. She sailed, and, on her way out, we met the Cambrian; but I was prohibited from writing to my own Captain.

The First Lieutenant of the Endymion, Lieut. William King, took great notice of me, and received much valuable assistance in his astronomical studies at my hands. Before reaching St. Helena he had persuaded Captain Durham that I was the most useful midshipman in the ship; and was also the means of my being sent on board to take charge of one of the convoy, the Marion, a country ship, loaded with indigo to the value of 300,000*l.*, during her passage home, as a sort of remuneration for my loss of pay, prize money, &c., when so unjustly detained from my own ship. Three of the Endymion's crew accompanied me. The captain and first mate of the Marion were confined to their beds by illness. Her crew consisted of seventy Lascars, besides two young mates, &c. She was used as a repeater and look-out ship to the fleet. At the mouth of the Channel, an American ship informed us that the preliminaries of peace (the peace of Amiens) were signed between France and England, and we communicated the joyful news to the several ships of the fleet.

In the autumn of 1801, the fleet arrived in the Downs, and Captain Durham presented me with my commission as a Lieutenant, dated 14th October, which Lord St. Vincent had sent to meet the ship in the Downs.

For a few months I remained on half-pay, when

Captain John Whitby*, R. N., who had married my eldest sister, applied and had me appointed, 21st June, 1802, to the *Belleisle*, 74, fitting out, under his command, on the peace establishment, in Hamoaze. In this ship, the following year, my youngest brother, John Charles, entered the service, under my care. He died a Commander in 1840.

After spending some time pleasantly enough at Plymouth, in shooting, fishing, boating, balls, &c., the Belleisle was ordered to the Mediterranean station in the spring of 1803. We remained three months at Malta, when there appeared signs of another disturbance in the political world.

This was occasioned by the unsatisfactory results of the Peace of Amiens — a peace which Nelson said made him ashamed of his country. Malta and Egypt having surrendered to the English, Egypt, as agreed on, was immediately restored to the Sultan; and Malta was to have been placed under some neutral power; but the annexation of Piedmont, and other despotic acts of Napoleon, obliged England to retain it, and to declare war against France.

At the commencement of hostilities (continues Lieut. Symonds), a squadron of ten sail of the line, under Sir Richard Bickerton, was ordered off Toulon, with an understanding that Lord Nelson was to have the command as soon as he could get out. We passed through the Straits of Messina and got upon our station. At length the great Nelson arrived, and soon proved that the best mode of injuring the enemy was to husband his own resources, to save the fleet and men from need-

* Captain Whitby died 1806. He commanded the Belleisle, until superseded by Captain (Sir W.) Hargood, who fought her at Trafalgar.

less wear and tear, and to keep the French always in a state of uncertainty. While he made every attempt to coax them out, he kept his ships in the most perfect condition; in truth, superior to any ever seen in the points of good order, smartness, and confidence in their leader.

On the 15th of March, 1804, I was transferred to the *Royal Sovereign*, 100,* carrying the flag of Sir R. Bickerton. When the war with Spain came on, we captured a long list of vessels; among them a government schooner, which I applied to get the command of; but Lord Nelson advised me not to take her. About the same time I lost a chance such as seldom occurs to a young man. It was in this way. His Lordship offered Sir Richard Bickerton a vacancy for a Commander, to act in the event of his having any officer on board with sufficient Admiralty interest to get confirmed. Sir Richard declined; and the present Sir Lucius Curtis had it out of a private ship; and was afterwards confirmed, at the *very moment when my friend and patron, Sir John Colpoys, was First Lord of the Admiralty*, or acting.

The Royal Sovereign was now ordered to cruise off Corunna. Meanwhile the fleet, after blockading Toulon nearly two years without going ashore, except among the small islands on the coast of Sardinia, where they sometimes cleared transports of provisions, and watered, — and after going up to Egypt in quest of the French fleet, which escaped from Toulon in one of these watering excursions, — turned their heads out of the Gut of Gibraltar, and went to Lagos Bay, near Cape St. Vincent, upon hearing intelligence that the French had passed, and that Sir John Orde had decamped on their approach. They found his transports in this bay, in a woeful plight. Our glorious commander filled his ships with provisions from them and from *us*.

While Nelson made his celebrated but unsuccessful

* See p. 7.

run across the Atlantic, in chase of the French, we were ordered to England and into dock. But I sighed for employment under an active officer, and grew heartily sick of forecastle watch and disappointment. Possessed by this feeling, I discovered that Lord Barham, the First Lord of the Admiralty was formerly a great crony of my father's; and I begged, in a letter, that he would put me into active service, preferring First Lieutenant of a frigate to anything else. By return of post, I was appointed, 9th of September, 1805, to the *Inconstant*, 36-gun frigate *, Captain E. S. Dickson, at Portsmouth; and found myself senior Lieutenant; but in her I was doomed to further suspense, as we were obliged to remain full three months in harbour, waiting for a spare dock. In consequence of this detention, I underwent the most mortifying, the most miserable, reflections. A great movement had been made in the autumn of this year to send reinforcements to Lord Nelson. The ship I had left, and in which I had complained of inactivity, and the Belleisle also, returned, both having borne a most conspicuous part in the glorious battle of Trafalgar. Ship after ship arrived, most enviably battered; when an old shipmate, Captain P. Carteret, came on board, and persuaded me to accompany him to the West Indies, as First Lieutenant in a fine brig sloop, the *Scorpion* †, 18 guns. Lord Garlies (afterwards the Earl of Galloway) having placed a countryman over me, in the Inconstant, I was not disinclined to leave the mud of Portsmouth harbour, and applied to Admiral Montagu, the Commander-in-chief, who appointed me forthwith; and my appointment was confirmed by the Board.

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* Built 1783.

† It was in the Scorpion, in 1804, that young Hardinge took the Dutch sloop of war, Atalante, for which he was made Post.

In the spring of 1806, the Scorpion sailed, under the orders of Captain Harvey, of the Canada, with a convoy for the Barbadoes station. On their arrival there she had a little affair with the inhabitants of Carupano, a small port near Margarita, on the mainland of South America, then under the dominion of the mother country. Its loyal Spaniards fancied the Scorpion to be one of the insurgent squadron commanded by Miranda*, which determined them to resist to the utmost.

Returning to Barbadoes (says Lieutenant Symonds), we found that Jerome Bonaparte, with a squadron of six sail of the line and a frigate (part of the Brest fleet under Willaumez) was in the vicinity; some of them having actually arrived in Port Royal, Martinique. We got a supply of shot and other deficiencies made good, and were ordered, after seeing them safe into port, to watch their motions as closely as possible. This duty or service devolved upon the Scorpion, owing to her inimitable sailing qualities, while frigates could not be trusted without risk of being taken. The Morne Fortunée schooner was attached to the Scorpion, and sailed tolerably well. After some days' watching, we repaired to Gros Islet Bay, St. Lucia, for water, and while there, Captain Spears, in the flagship Northumberland, came in from the Admiral, Sir Alexander Cochrane, with news that the latter had received letters about me, and that I was appointed acting Captain of the Scorpion, which appointment I should find at Barbadoes.

We returned to watch off Port Royal, and had the

* This adventurer began his career in the French revolutionary army, under Dumouriez; and afterwards became the leader of the patriot army; but, for his supposed collusion with the English, the was given up to Spain by Bolivar, and ended his chequered life in a dungeon.

pleasure of capturing a little schooner, only two miles distant from the French squadron, which was at anchor. She was laden with Jerome's wine. The Morne Fortunée took her to St. Lucia. Upon her return a short time afterwards she applied for one of the Scorpion's top-gallant-sails to make herself a fore-top-sail. We were in the act of unbending it, the top-gallant yards being on deck, the officers at dinner in the gun room, and Lieutenant Browne of the Morne Fortunée on board, when three of the French fleet were suddenly observed to slip their cables and drop all sails in chase of us. Being on the alert, we got yards up and made all possible sail, with preventer-back stays on the masts, steering across Gross Islet. At sunset we found we had left the chasing ships behind considerably. The Frenchmen wore round and joined the rest of their squadron, which was now also under way. The Scorpion wore, and followed them; and did not see or overtake the squadron until the middle of the night, when it was suddenly discovered that the brig was surrounded by them. We looked for the best opening to run out; and managed to place ourselves, at day-light, not very distant on their weather quarter, and afterwards followed their motions in everything, their best sailing line-of-battle ship, the Veteran, commanded by Jerome, and a frigate, chasing us daily.

At Guadaloupe, a brig of war joined them, and returned with despatches. We continued to follow until abreast of Montserrat, where we lost sight of them in a dark night. It afterwards appeared that they had gone to leeward of the island, and taken out three sail of English merchant vessels, which they carried to St. Martin. Supposing they were bound to the northward, we followed through the Barbuda channel, cruising off the Sombrero channel beyond. About the second day after taking up this position, we detained a most valu-

able ship under Portuguese colours, from Monte Video, bound to Porto Rico; and we had just got possession of her, when Jerome, in the Veteran, was descried coming down upon the brig. We abandoned the prize in the utmost haste; and had it not been for the Anegada reef, the Scorpion was in great danger of being captured herself. As it was, she had time to fly ere the enemy cleared it. They were then seen to haul in to Tortola, where a large English convoy was collected. It now became prudent, and indeed was in execution of our orders, to carry the intelligence to the Commander-in-chief.

On our way we fell in with his son, Tom Cochrane, in the Jason frigate, who gave us charge of the Cerf sloop of war. Her crew were all dying, with the yellow fever on board; and we were ordered to see her into Antigua, while he went to seek his father. We were not long in performing our errand: in twelve hours we completed water, stores, and provisions in English Harbour, Antigua, and proceeded once more to seek the Admiral; but instead of him found Sir J. B. Warren, who had made a rapid voyage from England in search of the enemy. He was glad to find that the Scorpion had so lately seen them; and being senior to Sir A. Cochrane, took us under his orders.

I was despatched on shore at St. Bartholomew's for news; and the day after, to St. Thomas's, where we heard that Jerome had gone to the northward. Following in pursuit, we coasted Porto Rico and thence to the northward. To my inexpressible disappointment I was cheated of the hope of being, at least, acting Commander of the fine old Scorpion. She so out-sailed all the squadron, that Sir J. B. Warren despatched her to St. John's, Newfoundland, to order a supply of water, provisions, &c. to be sent to meet him in the Bay of Bulls, near that town; a service performed with such alacrity that the ships which carried the supplies arrived

as soon as the squadron. A few days afterwards the admiral steered for the American coast, near Boston, and boarded a vessel, which only the day before had been present when a French line of battle ship burnt an English merchantman. Just at this moment, when Sir John had only the Amazon frigate as a look-out besides the Scorpion, he, from a somewhat foolish regard for an old first lieutenant, despatched the latter to England, in charge of the Moucheron brig, which was always in distress when carrying sail. We all thought he ought to have sunk her, and dispersed the crew among his squadron, which was rather short-handed, and did nothing afterwards in this quarter.

The greater part of the Brest fleet was, about this time, taken or destroyed by Sir John Duckworth and Sir R. Strachan; while, in the course of the year, Sir J. B. Warren, had the good fortune to capture Admiral Linois' division upon its return from the Indian Ocean. As to the future King of Westphalia, having left Willaumez without orders, he made his way across the Atlantic and reached the French coast, with safety to his person indeed, but so closely pursued that he was glad to run the Veteran ashore.

After a prolonged passage (says Lieutenant Symonds), from the Moucheron's ill-sailing and behaviour, we put into the Western Isles for water, of which we were so short that we had only half a cask left. We had also been severely struck by lightning, the main-mast and every spar dependent on it being shivered to laths; with one man killed and another severely wounded. Upon our arrival at Plymouth, after a refit, we were kept on that station; and became the scourge of the Channel. Many French privateers, recaptures, &c.,

fell into our hands ; such were the effects of a good look-out, good sailing, and *deception.* The officers were able to pay their mess, and never returned to Plymouth without a prize. Captain Stanfell succeeded Carteret; and in one instance a whole twelvemonth passed away with only one corporal punishment on board. The Glaneuse, 16 guns, Glaneur 10, Bougainville 18, Favori 14, and other privateers were taken, by using deception on board the Scorpion. Sometimes she was rigged as a bark; at others, with the fore top-gallant mast on deck. The Bougainville was taken after a long chase and running fight. Amongst the last of our prizes was the Glaneuse; being ketch-rigged she appeared admirably calculated for deception and fast sailing. In this latter quality she beat the Scorpion, insomuch that she would not have been caught had she not taken Scorpion for a merchantmen. The day following, I applied to the Admiralty to command her; she was refused to me; but, on the plea that I had asked for a command, I was appointed, instead, to the *Violet* lugger, 9th March, 1808.

On 21st of April I married my first wife, Elizabeth Saunders, fifth daughter of Matthew Luscombe, Esq., of Stonehouse, Plymouth. Soon afterwards I was ordered to the Guernsey station, under Sir Edmund Nagle, and took my family to live there. The Violet was employed as a despatch boat, and sometimes carried a few colliers and stone vessels, under convoy. In one of these trips we picked up a boat, half way over to France, which had been clandestinely taken by two French captains of privateers. They were charged with important letters and papers addressed to the Government departments of that country, by some runaway *parole* French officers, containing intelligence of the destination of squadrons, particulars of divers men of war, whether building, ready, &c., with a complete survey of the strength and fortifications of the

Isle of Wight. Some Englishmen were implicated in facilitating the escape of these persons. We carried the boat to Portsmouth; and all the papers were transmitted to the Admiralty.

After nine months' service in the lugger, I was appointed, 22nd November, to the *Brilliant**, Captain Thomas Smyth, ordered to take a convoy to the Brazils. Eventually we got out of the Channel, and made a tolerable passage to Rio Janeiro. Sir Sidney Smith was in the act of being superseded by Admiral de Courcy, when we arrived there. Shortly after, we left with a convoy of four or five vessels, for England.

The Port of Rio is extensive, and indeed magnificent, the country around it most productive and luxuriant, the hedge-rows, and even the wilderness, being full of rare and beautiful flowers and shrubs, with abundance of noble trees; but the city is badly placed and unhealthy. The water is so unwholesome that many men were on the sick list, in the most healthy ships in the squadron. In the wet season, when a calm prevails (which is very frequent), there is something so oppressive in the air, that all hands feel a disposition to complain. We saw even the fish float by, blown and putrid from some unknown cause; but supposed to be partly owing to the water.

In consequence of this we went out to sea with a long sick list, which greatly and daily increased, until as many as seventy men were confined to their beds by flux. This complaint became so infectious, that it was deemed necessary to arrest it by acting with decision and promptitude. The remedy was a simple one. Every article of clothing, every chest, drawer, table, chair, &c., was thoroughly soused; nothing, in fact, escaped ablution. We filled our rigging with apparel, blankets, &c.; and as fine weather aided the operation,

* The Brilliant, 28, was built 1799 at Buckler's Hard.

success was the result. The following day many of the men were in a convalescent state, and in a few days more the malady had nearly dissipated.

Our progress homeward was much delayed by heavy sailing vessels, one of which had to be towed all the way. When within a hundred leagues of Fayal, the want of water and wine obliged us to abandon the convoy, temporarily, to the best sailer amongst them; and an officer and twenty men were placed on board to defend her. On parting company, a severe *shock of an earthquake* was felt. We heard afterwards of the appearance of a small island, Sabrina, among the Azores.

Though this volcanic island did not actually appear till 1811, yet the shock here mentioned was, doubtless, one of the premonitory symptoms of the convulsion below. According to the statements of eye witnesses, it first rose 1st of February, 1811, about one mile and a half west of St. Michael's, from a depth of forty fathoms, accompanied by volumes of smoke, ashes, lightning, and tremendous explosions. H.M.S. Sabrina, supposing it to be an engagement, made sail to the spot. On the 20th, it was 150 feet above water,—increased to nearly 300 feet, when she returned from a cruise on the 4th of July. It was then about one mile in circuit, and very steep, possessing indeed all the features of the crater of a submarine volcano. The officers landed to take possession in George III.'s name, and crept with difficulty to the top, upon which they planted a union jack. By the middle of October it had sunk again, leaving a dangerous shoal behind.*

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* See LYELL'S *Principles of Geology.*

At Fayal (continues Lieut. Symonds), the officers visited a convent from which a nun had lately escaped, aided and protected by Captain H. Sturt, of the Termagant sloop of war, who made her his wife. The ladder was still at the window; and we were told that another nun, not so lucky, had broken her leg in endeavouring to run off with the purser. After obtaining all we desired here, we rejoined the convoy to leeward, got it safely up the Channel to the Downs, and then returned to Portsmouth. Captain Smyth went on leave, and became so ill that he could not return to pay the ship off, in October, 1809, which, from her decaying state, became necessary. After this I remained some time on half pay, although I had offered my services to any part of the world. We retired to a cottage called Aubrey, in Hampshire, in the parish of Milford, near Lymington; and close to the seat of my friend Admiral Cornwallis, who was the proprietor of Aubrey. Here the veteran lived a quiet and retired life.*

In the latter end of 1810, Admiral Cornwallis recommended me very strongly to Sir Richard Strachan; in consequence of which I joined his flag ship, the *St. Domingo*, April, 1811, and remained in her nine months, either at anchor in the Downs, or on the Eighteen-fathom Bank, off Walcheren, watching the French, after the return of our illfated expedition. This was a very extraordinary and monotonous service; so many sail of the line lying in an open sea; Middlebourg steeple just in sight, but the land rarely visible. We were always at single anchor. When it blew hard, we veered out, sometimes three cables. The only variety experienced, was sighting the anchor, or now and then trying rate of sailing. Occasionally the Yar-

* The Hon. Admiral Cornwallis died 1820.

mouth and Deal boats brought us out fruit and vegetables.

At length, on 2nd November, 1811, I was appointed First Lieutenant of *La Pique*, Capt. A. Maitland *, and joined her in the Downs, just as I heard of the birth of my second son, Thomas.

* Now Admiral the Hon. Sir A. Maitland.

CHAP. II.

1812—1826.

AUTOBIOGRAPHY CONTINUED. — THE PIQUE IN THE WEST INDIES. — DEATH OF MRS. SYMONDS. — MARRIES HIS SECOND WIFE. — CIVIL APPOINTMENT AT MALTA. — THE NANCY DAWSON YACHT. — PLAN FOR TRANSPORTING CLEOPATRA'S NEEDLE. — TRIP TO THE ADRIATIC. — HIS DOUBLE BOAT. — VISITS ENGLAND. — PROMOTED TO BE COMMANDER. — BUILDS THE COLUMBINE.

I WAS eminently successful in improving the Pique's sailing qualities. She had been three times totally dismasted, and was an uneasy, leewardly ship; but in my hands, her trim was altered, and she became one of the handiest and most serviceable ships in the Navy, and was celebrated for smartness and good order. The men would have it, that she was as "beautiful as an angel." At first, in 1811–12, she was stationed in the Straits of Dover and off Beachy Head, where her sailing was established; and then we joined Sir G. Martin, at Lisbon, where she was actively employed. Among other services, we chased a French frigate off the coast.

On one occasion the Pique was nearly lost in the Tagus, from being beset by a horde of merchant vessels hanging upon her cables, which brought both her anchors a-head. When the weather tide made, she was surrounded by several Brazil ships, and obliged to cut her cables and take refuge higher up the river, after they had chipped her gunwales down and upset her channels.

Upon her return to England, the Pique was ordered to the West Indies, and carried a convoy to Barbadoes. My third son, Anthony, was born about this time. Meanwhile the Pique was uncommonly active, and in the course of twelve months after the American war broke out, captured twenty-three American vessels, real or sham neutrals. Our ground was generally off St. Juan, Porto Rico, in the neighbourhood of which many fine privateers harboured; but several vessels eluded us. At length, being at St. Thomas's, despatches reached us from the Admiral, with a caution that the Constitution and President, Yankee frigates, were cruising off the Mona Passage, between Porto Rico and Hayti. The Bustard and another brig were with us ; but the former was sent to Santa Cruz with a convoy; the other was ordered to carry up letters, despatches, &c., to Barbadoes.

We sailed, and on the following morning at daylight, being to the southward, with the Mona Passage open, a ship was descried S., steering for the Passage, with a press of canvass. We had our head N., and as we considered him a Yankee corvette, or a runner bound through, we did not like to alter our course and thereby alarm him; so, accordingly, the wind being S., we braced the yards bye, and set a main royal of a particular shape (as in the margin), for deception. It took, and he was fast coming up, considering the light air. In the course of the day, we passed very near a shoal, which made us yaw a little, to clear it. About 4 P. M., some opinions began to alter as to the size of the ship astern. Many were certain that she was a large frigate: I thought her a corvette, from the proportion of her sails; or that she might be a rakish merchant ship. She came within about five miles of us, when perceiving that we were a frigate in disguise, — although our hammock cloths were laid over our guns, — she broached to, showing us her large

broadside. Down came her sky sails, and royal studding sails, and all the other studding sails: the topsails were then reefed on board her; and long, indeed, were they about it. The Pique immediately hauled her wind on the port tack; but it was so light that the ship, owing to a swell, would not come up higher than to bring the wind a-beam. We then showed the private signal, and he hoisted, what appeared to us, a Portuguese over a Yankee jack. We counted thirteen ports on her side; and all agreed that she must be one of the sixteen French frigates which we had heard were at sea. At length we saw her evidently clearing for action; and when the bow ports fell we discovered three more of a side than we could at first make out. Her bow ports were painted black, but the inside whitewash showed her strength. We hoisted our ensign and fired a shot towards him. He hoisted an American ensign; and we were convinced that he was a frigate of the largest class.

Captain Maitland frequently asked my opinion, and the opinion of others, of the ship in view, which so evidently evaded us; and when all agreed that she was a large Yankee, he told me he had an Order which it was necessary to explain to the crew; and the ship being cleared for action and everything quite ready, the people were ordered aft. The trade-wind having just set in, we had our top-gallant sails, courses, jib, and spanker set, and were on the starboard tack, lying up about N. ½ E. A sail was reported on the lee bow. The Captain then informed us all, that, having received an unusual Admiralty Order, he felt it necessary to acquaint us with it, in case a shift of wind or any other circumstance should enable us to be the assailant; as the stranger's position at this moment, two points abaft the weather-beam, left it at his discretion or option to approach us. The Order in question very positively *forbad our engaging, single-handed*, any of the large class American

frigates; but we were instructed, rather, to keep sight of them, until assisted by some other ship which we might fall in with. Upon hearing this Order, the crew expressed their hope that we should engage her; and desired to be placed alongside, hinting that boarding was their wish.

Sunset came, and the island of Zacheo, off Porto Rico, intervened between the Yankee and ourselves, after which we saw nothing more of him; but kept at quarters during the night, glasses being constantly used, in every direction, to observe his approach. About two o'clock in the morning, a sail was made out, looking very large, to leeward. It was conjectured that she must be either the vessel seen upon the lee bow at sunset, or the American frigate, after bearing up. We continued under the same plain sail till daylight, when to our intense mortification we found the horizon uninterrupted by a single speck in the shape of a vessel. Although we were strictly conscious of not having evaded a known enemy in view, still our disappointment was of a most bitter nature, and really savoured of those feelings which belong to a retreat. Thus defeated in our expectations, with hearts full of heaviness and rank chagrin, the Pique made the best of her way back to Barbadoes.

On another cruise, a beautiful schooner, called the Mary, an American letter of marque, was taken by four of the ship's boats under my orders, after a row of twenty-five miles, and out of sight of the Pique. The crew consisted of thirty-nine persons, fine looking men. She had guns and swivels, but made no resistance.

Towards the end of 1815, we were ordered home, with a large convoy, under the Swiftsure. Nothing particular happened on the passage, except passing through a sort of hurricane for several days, in which the Swiftsure, and every other man-of-war but the Pique, rolled and strained dreadfully; while she

reached England without stretching a yarn, or even cracking the whitewash, so very easy was she under her present trim. She was paid off in January, 1816, and recommissioned on the peace establishment. I remained with her, at the persuasion of Maitland, though every other officer had been superseded, in order that my Captain, who still retained the command, might find another First Lieutenant to his liking; indeed I was actually employed to discover one to supersede myself. I mentioned my friend, G. C. Blake*; but he would not accept the appointment; very justly observing, "If Symonds had fagged so long in her in vain, what could I expect?"

The Pique was again manned and officered; and I continued to fag on, until I heard that my wife was very ill, and my presence required at home; when I was compelled to get leave of absence. I departed for Fawley, Hants, where I had deposited my family, and found my wife very weak and poorly. Here, in January, 1816, my youngest son, John-Jermyn, was born. Soon afterwards, I heard that Maitland had left the Pique, and Fanshawe was appointed to take her to the West Indies. He brought his own Lieutenant, and I was, of course, superseded, after having worked like a horse for so many years to no purpose.

The state of my much-loved wife made me deeply anxious. All my bright dreams on joining her once more having vanished, I consulted the faculty about her health, and was at length advised to seek a milder air for her. Jersey being considered most eligible, I went there, bag and baggage; purchased a cottage at St. Aubin's, called Les Vaux; but soon, very soon, I was doomed to witness a sensible and painful alteration in the appearance of that dear soul. She was rapidly de-

* Now Captain G. C. Blake, of 1846. He was Senior Lieutenant of the Scorpion in Jan. 1810, when she captured L'Oreste, 14, under the batteries of Guadaloupe.

clining; and soon afterwards, on the 10th November, 1817, I was called on to deplore the loss of her I so tenderly loved. She died in a deep consumption. My second sister, Juliana, took charge of my little family, consisting of one girl and four boys, for nearly a year; and then left me, forlorn and destitute, and unequal to the task of bringing them up properly.

My chief acquaintance in the island was with the inmate of Trinity Manor House, Miss Carteret, sister of my old friend and Captain, Philip Carteret, and eldest daughter of Rear-Admiral Carteret, who left England in the Swallow, in Wallis's expedition round the world, but being separated, made the circumnavigation of the globe on his own account, 1766–9.* With this lady I found amusement, pleasant conversation, and friendly sympathy in my grief, little dreaming that she would afterwards consent to join her destiny to mine, and assist me in circumstances of so much need. Pro-

* The Carterets are a very ancient Jersey family, descended from the famous Reginald Carteret who defended the island against the Constable du Guesclin, 1374, for which his *seven* sons were knighted by Edward III.; and, like the Saumarez family of Guernsey, are distinguished by their hereditary naval spirit. Admiral Carteret was a very enterprising officer. When Lieutenant in Boscawen's action, he set fire to the Redoutable 74; and in the Endymion, during the American war, he captured the Marquis de la Fayette, 74, in a hurricane. He had gone round the world with Lord Byron's grandfather, or "Foulweather Jack," as he was called. After parting from Wallis (in the Straits of Magalhaens) he discovered New Ireland, New Britain, Egmont's, Queen Charlotte's, Carteret's, Wallis's, and the Admiralty Islands; and also *Pitcairn's Island.* "The evening of Thursday, 2nd July (1767), we saw land to the northward. Upon approaching it, the next day, it appeared like a great rock rising out of the sea; it was not more than five miles in circumference, and seemed to be uninhabited; it was, however, covered with trees, and we saw a small stream of water running down one side. It was so high that we saw it at the distance of fifteen leagues; and it having been discovered by a young gentleman, son to Major Pitcairn of the marines, who was unfortunately lost in the Aurora, we called it Pitcairn's Island." — *Hawkesworth's Voyages*, vol. i. Fletcher, the mutineer, read this account of Carteret's in his Commander's library, and was induced by it to make for this solitary spot, in the Bounty.

vidence so ordained it; and we were united in London, from the house of her uncle, Sir John Silvester, the then Recorder, in March, 1818.*

Before we were married, I had taken a liking to a pretty spot in the parish of St. Lawrence, called Patrimoine. This I purchased. We removed to Jersey, and lived very comfortably at Trinity Manor, while a house was building, upon my own plan and under my own immediate superintendence, at Patrimoine. When it was finished, in the spring of 1819, we went, accompanied by two friends, over to Paris, to see a little of the world, and to purchase papers, furniture, &c., for our pretty abode. Here we saw all that was worth seeing, and were about to depart homewards, when I received a letter from Captain Maitland †, then commanding the Glasgow, off Parga; stating that he was authorized by his uncle, Sir Thomas Maitland, Governor of Malta, to offer me the situation of Intendant of Marine Police, Captain of the Port, and sitting Magistrate for the ports of that island; and desiring that I would repair thither, look at the situation, and accept it if it appeared desirable.

Leaving the ladies to return by themselves, I started for Marseilles and Toulon; being charged by Lord St. Vincent with a gold chronometer for Admiral Viscomte Messiessy ‡, who commanded the arsenal at the latter place, and who very kindly allowed me to look at the dockyard, &c. I embarked in a merchant vessel from Marseilles, for Malta; and arrived there in nine

* Sir John Silvester, elected Recorder, 1803, was created a baronet in 1815. His nephew, Captain Philip Carteret, succeeded as Sir P. C. Silvester in 1822, and died 1828, without issue.

† He commanded the Glasgow at the battle of Algiers. His uncle, General Sir T. Maitland, 'King Tom' (as he was styled), the first Lord High Commissioner of the Ionian Islands, died there 1821, and was succeeded by Sir F. Adam.

‡ Admiral Messiessy led a squadron to the West Indies in 1805, and took St. Nevis, Kitt's, Montserrat, &c.

days. Here I found Maitland, who urged me to accept the berth; and soon afterwards I was initiated into the routine of duties connected with it.

A case of piracy, in which Delano and the crew of the English brig, William, of Liverpool, were concerned, happened at this time; in consequence of which it fell on me to examine and take depositions, confessions, &c., relative to this transaction; which very soon led to their apprehension and the capture of the vessel, by Captain Hobson; and eventually to the trial and execution of the ringleaders. In all this I was obliged to bear an active and disagreeable part; and at length obtained leave to proceed home for my family. I left, in the Glasgow, with the Governor, and was conveyed to Corfu, his head quarters as Lord High Commissioner and Commander of the Forces in the Mediterranean; and was by him most hospitably entertained. The senate of the Ionian States having met, Sir F. Stovin and myself were charged with despatches from Sir Thomas, relative to that event and other matters, to convey overland to England. We repaired, in a government hermaphrodite brig to Ancona; performed a week's quarantine; saw Loretto and the vicinity, while waiting for further despatches; and then purchased a carriage, and set off. In seven days and nights we reached London, — having crossed Lombardy to Milan and Turin, then over Mount Cenis, through Lyons, Paris, and Calais, — a distance of 1250 miles.

After spending some agreeable months in London, Hampshire, Jersey, &c., I freighted the cabin and part of the hold of the Catherine, a vessel bound from Jersey to Malta; and carried out my four boys, servants, and chattels. My wife and daughter joined me, a little later, on New Year's day, 1821; and thenceforth I entered fully into all my official duties. I amused myself in improving our *casa*, and in building a yacht, which I called *Nancy Dawson*. She proved a delightful solace

to me and to all; for in her we were enabled to breathe the fresh, cool air in the offing, while every soul in Valetta was baking. This is occasioned by the nature of its situation upon a white sandstone, which becomes very much heated, and reflects the glare of the sun most unpleasantly.

THE NANCY DAWSON.

A considerable interval passed away, during which I found my duties, though laborious, very suitable to my active disposition; while the mode of life did not disagree with me. When the Hon. G. Vernon* and his lady came to the island for her health, in their yacht, the Transit, I was introduced to them by more than one person; and we soon became very well acquainted. I made my first trial of the Nancy Dawson's sailing against his yacht, and had so considerable an advantage,

* The Hon. G. Vernon succeeded his father, as fourth Lord Vernon, 1829, and died at Gibraltar, November 18, 1835, on his way out in his yacht.

that I was led to believe that I had hit upon a secret in naval architecture; and after trying my hand upon four or five others of a smaller description, which answered beyond my warmest expectations, I was confirmed in the success of my principles by these experiments. Great breadth of beam and extraordinary sharpness are the characteristic features of my system; with a careful attention to stowage, the stand of the masts, and the cut and setting of the sails; nor had I, in any instance, occasion to alter anything materially from my first idea. The consequence was, a firm conviction that I might attempt something on a larger scale, with every hope of success; but of this, hereafter.

In the winter of 1822, the Governor sent me to Naples, with despatches to the British envoy there, and to his Holiness, Pope Leo XII. I made the voyage in excellent style; and returned, highly pleased with the Nancy Dawson's qualifications in a gale of wind. Previous to leaving Malta, I was consulted by Mr. Wright, an officer of engineers, about Cleopatra's Needle.* He was desired by Government to proceed to Alexandria, in order to observe its situation, calculate the weight, and report on the facilities for removing it to England,—Captain Boswell, in the Spey, being directed to carry him thither, and to assist him in the operation. With regard to moving it to the water's edge, I told him he should raise it from the ground (on which it now lies) with wedges, until a sufficiently inclined plane could be gained to launch it, something like a ship upon a cradle, and adapted to circumstances. Upon their return to Malta, Mr. Wright proposed showing me the Report which he and Captain Boswell had prepared to send to Government; but omitted to do so, stating, when I met him at a second interview,

* It was offered to George IV. by Mehemet Ali, through Captain (now Rear-Admiral) Smyth, surveying the Mediterranean in 1821–4.

that he had given it to the Admiral, Sir G. Moore. I questioned him as to how he contemplated getting the obelisk aboard ship, for conveyance to Spithead. This, it appeared, he had not considered, and he inquired how I would do it. A thought struck me, and I gave the idea to him; which made him regret more than ever that he had not shown me the Report as he intended, since, he observed, it would be complete with my hint. The same day I met the Admiral at dinner, when, the conversation turning on the subject, I remarked, What a pity it was that the principal thing to be considered had been totally disregarded. In this the Admiral, on explanation, concurred; and desired me to attend him the next morning, that he might, as he said, Make use of my brains. I thought, however, that it would be as well for me to draw up a paper to the Admiralty, offering my services, which the Admiral forwarded, with his own comments; but no answer or acknowledgment was ever returned. Some time after, I sent a supplement to complete what, in the hurry of the packet's sailing, had been neglected in the first paper, with a plan; which shared the same fate. The following is my first letter, addressed to the Lords Commissioners of the Admiralty, on the subject of *Transporting Cleopatra's Needle to England*:—

"Malta, 20th May, 1821.

"My Lords,

"Having understood that it is in contemplation to remove an obelisk of great magnitude from Egypt to England, I am prompted to address your Lordships, being stimulated entirely by the desire to render a public benefit; and most freely and voluntarily do I here offer my best services in the execution of my plan, and am willing to stake all my hopes in the service on the result of that which I am about to propose.

"Previous to the departure of H. M. Sloop, Spey, Captain Boswell, carrying an officer of the Engineer Corps to Alexandria, in order to discover the facilities for removing *Cleopatra's Needle*, my opinion was demanded by the latter officer: and I had several conferences with him on the subject.

When they returned from Alexandria, I discovered that some of the hints I had ventured to offer were acted upon in their Report; and having given the matter more consideration, I recommended a plan for shipping this heavy piece of granite, which Mr. Wright regretted had come so late, as he had concluded his Report. I have since had the honour of conversing with Vice-Admiral Sir Graham Moore on the subject, who appears to think the plan feasible. I am therefore tempted to submit the following proposals to your Lordships.

"A pier being recommended, to extend ninety feet to where there is five feet depth of water, I will suppose the inclination of the ground to be gradual, and propose that it be protruded to the length of 126 feet, which, by calculation, will find seven feet water. In proportion, the expense in that country will be increased from £800 to £1120, from which the ramp, as it is described, may be deducted. But all this expense the Viceroy of Egypt appears inclined to defray. A ship selected by their Lordships for its transportation, I humbly consider, need not exceed 800 tons, and if she did, of course she would bear the solid weight of 250 tons more easily.

"To this vessel, if not already adapted to take the ground in an upright posture, should be affixed bilge pieces; and her keel should be reduced. The stern of this vessel, above the lower transom — which I will suppose to be eighteen feet above the lower part of the keel, and sufficiently high to obtain a breadth of twenty-seven feet, and height of fourteen feet, for an aperture—I would fit with close folding gates, similar to those used in a floating dock, which, in fact, this vessel would become. Allowing that she be sunk in depth sufficient to float six feet draft of water over the lower part of this opening, a pontoon constructed of tonnage sufficient to bear 250 tons (which I have calculated this aperture will freely admit), and drawing less water than six feet when bearing that weight, could be floated into the vessel's interior, if formed so as to fit her bottom, which should have strong bearings in every part to receive the burthen. It would gradually settle and bear, after the gates were closed, and the water discharged by means of steam, or chain pumps.

"When the vessel emerged and found her bearings, the rudder might be hung as originally placed, and the ship's stern secured, either by artifical transoms across the gates, or by knees, planks, or other fastenings which shipwrights may deem necessary; all of which, with the pontoons, &c. &c., might be fitted to the ship ere she leaves England. If light waisted, this vessel might be navigated at an inconsiderable expense; which, with the outfit and the payment of artificers, with the means

required by the land engineers, would form the principal cost. The vacant space, above the obelisk and its bed, could be supplied with ship-timber, or other materials, as might seem fitting to your Lordships. The obelisk, on its arrival, may be taken ashore by the same simple means, especially where the tides might prove no inconsiderable acceleration to its removal.

"The Ancona transport, 471 tons register, carried from Malta to Corfu, in the beginning of this year, upon a bed of 200 tons of shingle ballast, between 480 and 500 tons of Malta stone; besides having between her decks, by admeasurement, 200 tons of commissariat stores; which may serve to prove to your Lordships that a moderate sized vessel may serve the purpose.

"With the highest sense of respect, I am &c.,

"W. SYMONDS.

"To the Right Hon. the Lords Commissioners of the Admiralty."

Sir Graham Moore transmitted the foregoing proposal and plan to the Admiralty, in the middle of May, 1821, per Sandwich packet, Captain Schyler; the original plan of Captain Boswell and Mr. Wright having been despatched on board Mr. Vernon's yacht, the Transit, a few days before. Though no reply, as I have said, was ever made to me, yet, in March, 1822, I submitted a supplement, to make the thing more complete.

"Malta, March 12, 1822.

"MY LORDS,

"In the month of May ult., I had the honour to transmit to your Lordships, through the medium of Vice-Admiral Sir Graham Moore, a rough plan for the shipment of an Egyptian obelisk, named *Cleopatra's Needle;* which plan having been executed hastily (in order to save the packet), I am induced to reiterate the offers contained in my letter of my best services in the execution of that plan; and also to add some observations by way of supplement. I likewise take the liberty to subjoin a duplicate of the aforesaid plan.

"Contemplating the necessity of a general co-operation in embarking the Stone in question, I beg leave to urge that, if my plan be adopted, it appears to me obviously, if not indispensably, necessary, that the pontoon which receives the Obelisk and its appurtenances at the end of the pier from which it is

got afloat, should be so constructed as to become when sunk, a continuation of the said pier; in order that the Stone may move gradually and easily from one to the other.

"It is unnecessary to remark that great strength should be the first principle in the construction of that which is doomed to bear an object so ponderous. If this pontoon is of bearing or tonnage sufficient to carry 250 tons, there can be no doubt that it will raise that weight, when relieved of the water by means of which it had previously sunk. Divers modes might be used to steady and assist the pontoon, while so forming the extremity of the pier. In fact, the means of placing it, and of its removal, appear very simple; and provided that the inclination of the surface of the pier be continuous over the pontoon, and the parts which come in contact be correspondent, the greatest difficulty will be surmounted.

"In the event of any shipments of timber being meditated, from the shores of the Mediterranean, for the Naval Arsenals in Great Britain, I humbly suggest that a large supply of it might probably be diverted to assist the formation of the ways, on shore at Alexandria; and assuredly might be turned to good account in filling up the vacuum and ensuring the stability and steadiness of the Obelisk, in the vessel's interior. Under the operation of receiving the pontoon which bears the Stone, the foremast might remain untouched; and the other masts, if stepped even over the Stone, I aver, may be rendered perfectly secure; while accommodation for the crew of the transport may be preserved in the fore body of the vessel, which would not require to be at all altered; but the space between the bed in the bottom and the deck above it must be sufficient to allow room to work above the Stone, while the vessel is sunk under the operation and while the pontoon is floating inwardly.

"I should humbly propose, lastly, that in order to render the sequel of the undertaking beyond a doubt, an experiment should be made, both upon the pontoon with regard to its draft (under the burthen), and also upon the transport in the performance of the deposit of the loaded pontoon with the extent of the Obelisk's dimensions moulded thereon; which experiment tides would effect with slight trouble and expense.

"I am, &c.

"W. SYMONDS.*

"To the Right Hon. the Lords Commissioners of the Admiralty."

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* In reference to this subject, Lieutenant Symonds quotes the following from ABBÉ ST. NON'S *Voyage Pittoresque du Royaume de*

My sister, Mrs. Whitby, with my brother, Captain John C. Symonds, came to Malta about this time, for the health of her daughter, and remained many months there; until I was requested to take the ladies to Leghorn. Nancy Dawson, the Fortune's Favourite lugger, and Sal Shapes, another little yacht of my building, sailed together, and had a very pleasant trip so far as Messina, all in company. Leaving the other two to return to Malta, we, in the Nancy Dawson, proceeded first to Naples; passing close to the Calabrian coast, while working against a directly contrary wind.

They gave us *pratique* at Naples, where we remained

Naples, Paris, 1781. "Aucun des Historiens ne nous a transmit le détail des machines dont les anciens ont dû se servir pour transporter sur leurs vaisseaux ces masses énormes; non plus que la manière dont ces vaisseaux ou radeaux étaient construits. Pline est le seul qui ait parlé du moyen simple et ingénieux qu'employa l'architecte Satyra sous Ptolomée Philadelphe, pour conduire à Alexandrie, l'Obélisque de Nectabis, roi d'Egypte, qui avait cent vingt pieds de long; et il est probable que ce même moyen fut mis en usage pour le transport des autres Obélisques de Thebes et de Hiérapolis. Voici comme il le décrit.

"Satyra fit creuser un canal navigable qui s'étendait depuis la carrière ou l'on taillait l'Obélisque, jusqu'au Nil. Ayant fait construire ensuite deux grands vaisseaux plats, on les chargea de pierre et de sable, beaucoup plus que leur capacité ne le permettait, et jusqu'à ce qu'ils se trouvassent à fleur d'eau; afin de pouvoir, étant ainsi affaissés par leur charge, les faire facilement passer sous l'Obélisque, dont les deux extremités partaient sur les rives. Ces bateaux ainsi placés et déchargés ensuite de tout leur poids, devaient par le force de l'eau se relever nécessairement et soulever avec eux l'Obélisque dont on devenait maître et que l'on conduisait par eau ou l'on voulait."

The Lateran obelisk at Rome, the largest of its kind, was brought from Heliopolis to Alexandria, and thence to Byzantium, by Constantine; but removed to Rome by his son Constantius. It was 150 feet long, weighed 445 tons, and was brought over in a flat bottomed vessel, manned by 300 rowers, and ballasted with a cargo of pulse. The vessel came up the Tiber within three miles of the city; when the obelisk was placed on rollers. The height of Cleopatra's Needle is 63 feet only, without the pedestal. The Luxor pillar at Paris is 76 feet. It was brought over, cased in wood, from Egypt, in 1831, by M. Lebas; 800 men being employed for three months in making an inclined plane to the Nile.

four days to rest. We next touched at Ischia, and called on Mr. Hamilton, the Envoy; thence along the Spiaggia Romana, to Elba, from which we got safely to Leghorn. We then travelled by land to the Baths of Lucca, and through Prato to Florence. Here I wished the ladies a good journey to Switzerland, and returned to Leghorn. I found Lord Byron's yacht, the Bolivar schooner, there, which I had the pleasure to beat in sailing most exceedingly. His Lordship suffered an indignity here which he and his suite could ill brook. The Despatch, a man of war brig, seeing a pendant flying on board the Bolivar, ordered it to be hauled down. Upon this, one of my Lord's colleagues challenged the commanding officer; but his senior Captain contrived to place him under close arrest until they were off to sea, which put an end to the row. Leaving this port, I returned to Malta, touching at Civita Vecchia, Messina, and Syracuse, *en passant;* and beat the Despatch four days in the run.

The Vernons returned to England in their yacht, and the Whitbys had long since departed, when, in the spring of 1823, I determined to take a cruise, in the Nancy Dawson, in the Adriatic. The Governor's yacht, the Ionia, was going to Corfu, and as the Chief Secretary of Malta, Sir R. Plaskett, wished to accompany me, he took a passage in the Ionia. I thus had the advantage of her as a consort, and we sailed together; but on the passage I so beat this vessel, and gave them altogether so much trouble, that the Secretary got tired of her, and, on reaching Corfu, he came on board to join me. My equipage consisted of my two elder boys, Sir Richard and his servant, an artist, and three men.

Off Albania we found a strong breeze, and put into Durazzo. Thence to the Bocche di Cattaro, where I shipped a fisherman as a sort of pilot. Sailed the next day by Ragusa, and through the channel of Meleda, or

Melita, putting into a beautiful port, called Porto Palazzo, in that island. Here we amused ourselves with strolling about among aromatics, and viewing a beautiful and picturesque inland lake, called Il Lago de Nostra Signora; and visited the convent of La Madonna del Lago. Went from thence to the Canale di Curzola; put into Torcola, a small isle on the coast of Leisina; thence, by Sienna, where the *deputato di sanità* was anything but polite.

Passed Ragosnizza, an excellent port on the main, near the island of Archangelo; next through the Zara channel; then by Lossini, leaving Mount Osera, in Cherso, on our right. We went by Promontore and Rovigno by night; and when off the lighthouse of Salone, we were caught by a *borino* (or north wind), which made us douse every sail. Got to Trieste, and were no sooner anchored than another *borino* nearly destroyed us, carrying away masts, and sinking two vessels at anchor. We got *pratique*, and took up our quarters ashore.

At this time Jerome Bonaparte resided here. He expressed a wish to an English merchant to take a sail with me, which I came into readily, and should have had the pleasure of giving the Emperor's brother a cruise, but for the Austrian police. As soon as they were informed of it, they swore in Jerome's boat's crew as policemen, and ordered them to prevent his embarking. He heard of it; and then, like a true Bonaparte, exclaimed, that he was much obliged to the English gentleman; but, upon consideration, he preferred not embarking, particularly as the result of his brother's going on board the Bellerophon* had convinced him that he ought to determine not to follow his example!

* The ship to which Napoleon surrendered himself, after the battle of Waterloo; commanded by Sir F. Maitland, cousin of Admiral Sir A. Maitland.

Whenever we met him on the Corso, he gave us a gracious bow.

We went to see the grotto of Carniola, and the imperial stud at Lippirra; and, on my return, I was told that my sister, who, by this time, I fancied was in England, had arrived at Trieste by a steamer from Venice. I also received a letter from Zebec Touzi, from Demerara, thanking me for a *husband*, and asking me to stand godfather to her first-born. Her history was rather a remarkable one. When my elder brother, Tom, was in the West Indies, blockading the city of St. Domingo, in 1809, he became possessed, under very extraordinary circumstances, of twin little girls, the orphan children of Lieutenant F. Touzi, of the French navy, whom he determined to adopt and educate. They were captured on board a schooner, in trying to make their escape from St. Domingo. After many difficulties, he carried them in his ship, the Tweed, to England, where he had them educated. Ultimately, in March 1815, he married one of them, Lucinde.

I had told this story in the presence of a young officer of engineers at Malta*, who was so struck with the details, that he immediately inquired, "Where is the other? is she to be had? I'll marry her, if she'll have me!" He traced out Zebec, and the result was as I have just related. Her letter to me had been put into a ship from the West Indies, bound to Gibraltar; and, oddly enough, having been passed to another, which it was supposed would touch at Malta, it came in it on to Trieste. The merchant who handed it to me, said he had been about to send it by a vessel going from Trieste to Malta, when he heard that a Mr. Symonds had arrived from thence in his yacht.

* Now Colonel A. Gordon, Commanding Engineers, at Birmingham. The history of the twin sisters is related in a piece of autobiography called "Les Jumelles."

I hired a second vessel for my sister, Mrs. Whitby, and party, and we proceeded in company along the coast of Istria as far as Pola, where we admired the magnificent Roman amphitheatre and the fine harbour; sketched, strolled about, and dined among the ruins of this ancient town, which include two temples, and the arch of Sergius. I then departed for Ancona, on the Italian side of the Adriatic, being bound to the fair of Sinigaglia; leaving the ladies, who wished to remain a little longer at Pola, to return to Venice, where their carriage awaited them. We got to Ancona well, and were in time for the fair, which is composed of a most motley description of merchants from every part of the world, Jews, Turks, Greeks, &c., showing more diversity of costume than we had ever witnessed. Some of the best performers in Italy were here, and the opera was very good; we had great amusement, and brought away bargains.

I carried with me letters to Cardinal Xibberas Testaperata, Governor of Sinigaglia, from his brother, the Barone Xibberas, of Malta, and I failed not to pay my respects to his Excellency. He received us very cordially, and introduced us to a brother Cardinal staying with him, and to every grand personage in his palace. He took particular notice of my two boys, William and Thomas, and said they would be noble fellows if they were not *heretics*. He was astonished at our journeying so far in so small a vessel; called himself a countryman of ours, saying that he is the only English Cardinal. He seemed very sorry that our stay was so short; wished his brother had accompanied us from Malta; gave us a very strong invitation to the palace; and ended by insisting that we should come to him in the evening to see the fireworks.

We left Sinigaglia after the opera was over, and returned betimes to Ancona. Here we took coach for Loretto on the following day; saw all the wonders, votaries, &c.; and returned fully satisfied. On leaving

Ancona, we paid one more visit to Sinigaglia *en passant;* and the same evening steered towards Venice. Arrived off the Malamocco Channel on the second day; and anchored for the night. In the morning we carried away the chain cable, and were obliged to borrow an Austrian *dogana* boat, to weigh it again. Then proceeded up the channel to Venice, mooring Nancy Dawson to the Piazza di S. Marco. Found Lord and Lady Ponsonby there, and went to the same hotel.

A few days served us to look at the extraordinary points of this remarkable city. We then set off to Fusine, and through Padua, Vicenza, and Verona, to Lago di Garda; but owing to the size of the lake, the lateness of the season, and the unpromising appearance of the boats, we were not tempted to examine it more closely. Returning to Venice by the same route, we passed the Ponsonbys on the road, between Vicenza and Verona; and got back in a gondola to our inn. Looked at the Armenian convent at S. Lazaro; Lido, and its fortress, built by Sanmicheli; the gardens near the Arsenal; the prisons; the famous Ponte Sospiri, or Bridge of Sighs; bead manufactory at Murano, &c.; and finally departed in Nancy Dawson, trying the lead occasionally, as we worked through the canals.

Called at Pola again, and coasting Istria round Promontore, got into Lossini Piccolo, the third night from Venice. This is a vast and excellent port under Mount Osera. We took a good look at its situation, &c.*; and going round S. Pietro di Nembo, through the divers channels to the north of Zara, formed by Pajo (or Pago) and numerous other islands, and the mainland, we got into a spacious gulf under a high range, called the Velebitchi Mountains. Sailed up to the head of it, passing shoals and rocks, until we observed

* The hydrographical notes taken by Lieutenant Symonds on this occasion were afterwards transmitted to the Admiralty. See Chap. III.

a very narrow strait, not a cable's length (about $\frac{1}{8}$ of a mile) wide, which appeared like an artificial cut through a rocky neck of land.

We entered the strait and met a strong gust blowing through it. After various windings, stretching about a mile, we got past it, and were delighted to find ourselves in a beautiful basin, on the Dalmatian coast, completely landlocked, forty miles from the entrance of the gulf. We were at a loss for anchorage, and as the night was fast approaching, we made for a castle which we observed on the south side. Everything looked unpromising; but we sent in our boat, from which was flying the signal for a port; then steered in through another serpentine entrance, westward of the castle, and to our agreeable surprise found a capital haven, in about five fathoms water.

Went on shore, and came across a sort of *deputato di sanità*, governor, British vice-consul, &c., all in one. He showed us the town and castle of Novigradi, in Morlakia; a ruinous old place, where he assured us the English flag had never been seen before. We slept there, and sailed out of the port on the following morning, very early; swept through the narrow strait, passed Pago, by Nona, and into the Zara channel. Anchored in that place, about 12 at night, after a lucky escape, having run nearly over the breakwater, through the ignorance of my Bocchezzi friend, the pilot. We looked at the town of Zara, which possesses two ancient columns and many other marks of antiquity. The ditch or fosse which divides it from the mainland and thereby protects it from invasion, is a great work.

In the afternoon we departed, and ran to the south through the narrow channel of Zara. The day following we anchored off a little town called Vodizza, after touching the ground: another instance of our pilot's negligence and ignorance. Slept there; and, on the morrow, entered the fine harbour of Sebenico, which is

about three or four miles from the Roman port, guarding the narrow, winding entrance of the ancient river Titius, now the Kerka.

Following our course up this river, which looks like a gulf or lake, it led us to a narrow passage several miles long, very deceptive and twisting, so that we had some difficulty in finding our way through the labyrinth. At length we came into a second very extensive lake, which appeared at first to have no further continuation; but at last we spied an opening into a still narrower passage, very picturesque from its variety of scenery, which brought us to the small town of Scardona, off which we anchored. Found the Governor of Zara here; the *deputato di sanità* very civil. Hearing a roaring noise like that of a cataract, I learnt from him that it came from the cascade of the Kerka, about three miles higher up the river. Proceeded thither in a boat; and found forty mills worked by a noble waterfall, grand, extensive and imposing, and one of five for which this river is celebrated. The magnificent lake above the fall, and the mountain heights around, produced a very striking effect upon us.

Returned late on board, slept well, and departed with a good breeze, at four in the morning, down the Kerka, renewing our acquaintance with its scenery; and then found ourselves again among the archipelago of islands in the neighbourhood of Ragosnizza. Spalatro was our next object for exploration. There we saw the vast palace of Diocletian, and the three temples within it, one to Jupiter; the arches which support the ruins are highly worth observation. We made a trip to Salona, which is quite in ruins; and saw the aqueduct, which tradition says was built by Diocletian (a native of Salona), for the sole purpose of supplying his palace at Spalatro with live trout, a distance of four or six miles. The Campanile, or belfry of Spalatro, is formed out of the stones of Salona.

At night, got under weigh in a strong *borino;* ran under jib and mizen to Leisina; anchored at two in the morning; weighed again in the forenoon; and ran through the Curzola Channel. Anchored at night in the Meleda Channel, after working through a strong *borino*. Weighed in the morning, and proceeded through the beautiful channel* of Ragusa; went inside the mole, and visited the Consul. Weighed the next day, and landed our pilot at Castelnuovo, in the Bocche di Cattaro; anchored under the Greek convent; and went up to Cattaro in a boat.

Looked at the Montenegrin passes, regretting that we could not take advantage of a proffered escort to visit the interior of this extraordinary country; and returned through the windings of the beautiful scenery of the Bocche to our vessel, highly delighted with the excursion. Made sail the following day for Corfu, which we reached on the third day. Here we rested a couple of days, saw our friends, and then sailed for Ithaca, passing near Parga. Spent the evening with the President, and Captain and Mrs. Fox. Thence to Zante; and made an attempt to get to Missolonghi and the Gulf of Lepanto; but were foiled, owing to the premature return of the English squadron.

Departed for Cephalonia, and passed a tremendous night, under the Black Mountain, in a storm of lightning and rain. Found Argostoli an excellent port. We lived with the Resident, Colonel Napier†, and Captain Kennedy. Met Lord Byron at the 8th's mess; called upon him at his cottage at Mataxata. He was very agreeable, and gave us a tiffin of cold meats and fish. Said he was glad to send letters to Malta by us; and heartily cursed the old Greek senator, the Regent of Cephalonia, for abusing the con-

* *Canale* is the common name for the narrow passages between the islands in this quarter.

† The late General Sir C. Napier, Resident from 1822 to 1830.

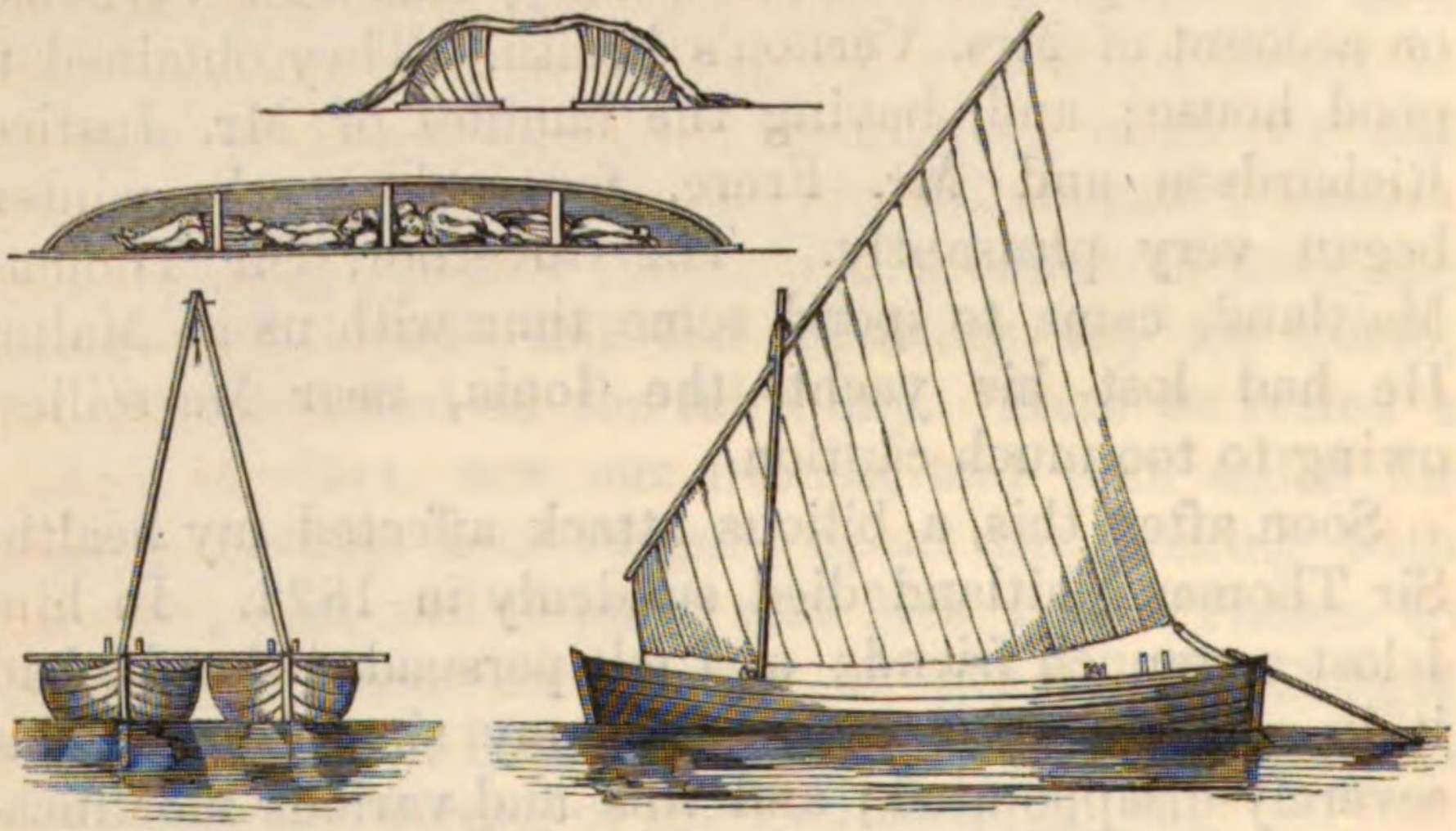
fidence of his correspondents at Genoa and Leghorn, by refusing to supply him with money. "Tell the merchant at Malta," said he, "that I have *fifteen Cantos* in my pocket; and you know the world considers them to be each worth 3000*l.*"

After a very pleasant sojourn here, we departed for Malta, beating three men of war in the course of the passage. Arrived there September, 1823: were put into quarantine for two days; and then saw our friends once more, after an absence of three delightful months. The Sybil frigate, Captain Pechell, came to the station, bringing the most worthy, excellent Vernons, on account of Mrs. Vernon's health. They obtained a good house; and, having the families of Mr. Justice Richardson and Mr. Frere, for society, the winter began very pleasantly. The Governor, Sir Thomas Maitland, came to spend some time with us at Malta. He had lost his yacht, the Ionia, near Marseilles, owing to too much caution.

Soon after this, a bilious attack affected my health. Sir Thomas Maitland died suddenly in 1824. In him I lost a staunch friend; as I felt persuaded that he had it in contemplation to improve my situation. I was severely disappointed; and this and various mortifications, in a professional and other points of view, aggravated my disease, and I became really ill. About this time, Sir W. Curtis, the Alderman, and Admiral Ferrior paid us a visit. I now and then had a sail in Nancy Dawson, and wanted the alderman to take a bet upon her, but he declined it. At length, Colonel Vernon Graham, inspector of Ionian militia, becoming desirous to purchase my vessel, I sold Nancy Dawson to him, as I had an idea of going to England for my health, and was not able to use her. She was sent to Corfu; and I made preparations to fly homewards.

The projected mission to Tunis, with which we had a political misunderstanding, led me to the invention

of a Double Boat suitable for travellers in Africa. It was to be in four parts, to combine lightness with facility of carriage, and the useful quality of being turned into a dormitory, while the camels rested in the desert. When the model was completed, I conceived that it could also be used in troop ships, whalers, and other vessels; and would besides make an admirable pontoon for army purposes; since it might be very easily conveyed on ships' quarters, decks, skids, or on the sides of baggage waggons or tumbrils. The boat was ordered at Malta.



SIR W. SYMONDS'S DOUBLE BOAT.

The Marquis of Hastings * was appointed Governor and Commander-in-chief of Malta as successor to Sir T. Maitland. He was then at Naples; and the Phaeton frigate, Captain Sturt, being ordered to convey him over, with his family, it gave Mr. and Mrs. Vernon an opportunity of returning to England by the Continent, and of seeing their friend Lord Hastings

* The Marquis, who had been Governor-general of India, died Governor of Malta, 1836. See MOORE's *Memoirs*, and the *Public Characters of* 1798–9, for notices of this amiable and accomplished nobleman.

also. They invited me to be of the party, offering me a seat in their carriage. This was too tempting to be refused: the easy manner of travelling was desirable for my complaint, and it gave me, besides, the means of a good introduction to the future governor. We bade adieu to Malta, had a fine weather passage, arrived at Naples, and after a few days' quarantine, were allowed to debark. We went to the Albergo Reale on the Chiaga, fronting the sea, where the Marquis and his family lived; and I was well and cordially received. We stayed to enjoy Naples for a few days until the Marquis sailed. During this short period, we had an invitation to go to Carditello, a race-ground and villa, belonging to the King of Naples. Here we spent an amusing day, and had the honour of being in company with Ferdinand and his family, Maria Louisa, the Ex-Empress of France, &c. We had a grand dinner and much *divertimento*. The race-ground stands in the middle of one of the principal forests; the thousands who were present at the race were encamped in a variety of pleasing groups under the trees; music, hilarity, and animation characterised the whole scene.

Leaving Naples, we commenced our journey homewards in the early part of May. Staid a few days at Rome, seeing the Vatican, St. Peter's, and whatever appeared most worthy of notice; and formed a very perfect idea of its ancient grandeur and present nothingness. We crossed the Apennines to Bologna, and on to Florence. Tarried there a while at Schneider's Hotel; saw the collections, galleries, &c., and proceeded through Parma and Piacenza to Milan. Visited Lake Como, and explored its beauties in a boat. Passed through Varese to Baveno; crossed the Lago Maggiore; by carriage to Laveno; visited the Borromean isles; and thence proceeded over the Simplon to Bex in Switzerland. Enjoyed that pretty spot exceedingly; and went on to Lausanne and Geneva.

Here we parted, as my friends went to Mr. and Mrs. Aylmer at Geneva, and I to Changins, the seat of M. le Comte de St. George, who had married my wife's sister, Caroline. They received me with cordiality. I spent a delightful week with them, and then rejoined the Vernons. Up the Jura to Les Rousses at the summit; and on to Dijon and Paris. Took up our quarters at Hôtel Meurice. Visited the new chapel of Rev. Lewis Way; and called at his house in the Bois de Boulogne on our way to Versailles. Here I dined and met Sir Sidney Smith, who was very entertaining.* Next day we proceeded to Rouen by way of Vernon.† From Rouen I had the curiosity to go down the river to Havre, in a steam vessel, and got aground for the night on a bank of shingle. Rejoined my friends at Havre; and saw my brothers-in-law, the Luscombes.

Departed the second evening from Havre, in the Camilla steam-vessel; and landed at Portsmouth the next morning, at 8 o'clock, July 2nd, 1824. My friends went on board their yacht, the Transit. I started for London to prosecute my plans. Called on Lord Lauderdale, Sir Anthony Maitland's brother; on Sir R. Plaskett, and Phil. Carteret; and visited the Admiralty about my Double Boat. Showed the manuscript to the Right Hon. W. Wallace.

I next consulted Sir Astley Cooper respecting my health; and went, by his advice, to Cheltenham, where I took the waters, with horse exercise, which did me a little good. In August I attended the Cowes regatta, and saw my friends. Returned to Cheltenham; and found my sister Juliana there, and my brother Tindal's family. Back to London, and waited on some members of the Admiralty, to whom I presented a pamphlet on

* Sir Sidney Smith died in Paris, 1840, and is buried in the Père la Chaise.

† Vernon, now a station on the Rouen railway, was the original seat of Lord Vernon's Norman ancestors.

*Naval Architecture**, besides distributing several copies in other directions.

Having received an invitation to Dunbar House, the seat of the Earl of Lauderdale, I left in a steam-vessel for Edinburgh; and was delighted with the city, and its fine situation. Reached Dunbar House, in Haddingtonshire; and after being well received by Lord Maitland† and by my old friend, Captain Anthony Maitland, the Earl and Countess arrived, and made me very happy and comfortable. We had an excursion to Lauder, or Thirlestane, Castle, the old family seat; and to Whittinghame, the seat of Mr. Balfour, who had married Lady E. Maitland. Met with excellent sport.

My pamphlet was well received by the Earl and others. Lord John Hay and Captain Hay, of Belton, visited me. Captain Basil Hall was much interested about the Double boat, the Needle of Cleopatra, and my Paper on *Naval Architecture*, and made an offer to me, which induced me to take my leave and go to Edinburgh, in the neighbourhood of which I lived, with Mr. Warrender and Lord Lauderdale, at his son-in-law, Sir John Warrender's seat, Bruntsfield House. Called on Basil Hall, and was introduced to professors, publishers, and Scotch reviewers, who wanted me to publish in the *Edinburgh Philosophical Journal.* I gave them sketches for copper-plate engravings.

From Edinburgh I proceeded to Glasgow, and thence to Greenock by steam. Here I took passage to Liverpool in a sloop. Saw the docks and shipping, and the public buildings there. Went by way of Manchester and Birmingham to Bristol; visited its docks and shipping, and inspected Clifton; and then off to Weymouth. Crossed over to Jersey, where I arrived in

* Printed in 1824. See an outline of it in Chap. IV.

† Viscount Maitland succeeded his father, the eighth Earl, in 1839. His brother, now Admiral the Hon. Sir A. Maitland, is heir presumptive to the title.

November, with the intention of going out to Malta by the December packet, in company with Colonel J. Maitland. But the heavy gale of 23rd Nov. 1824, kept me there,—as none of the packets and traders could leave the port.

At this time a letter reached me from my brother John, copying a letter from Sir C. Paget *, full of compliments, and couched in the handsomest terms; inviting me to become First Lieutenant of the King's yacht (certain promotion), and to command *ex officio* the 10-gun brig Calliope; and stating that he had named me to Lord Melville, First Lord of the Admiralty; an offer which could not be refused, but was instantly accepted. I flew to England, got the original letter, proceeded to Portsmouth, and received my appointment, dated January 1, 1825, to the *Royal George* yacht, Captain the Hon. T. B. Capel†; and then joined the *Calliope* tender.

I got leave to go to London, where I saw Lord Lauderdale, who had been active on my behalf with Lord Melville, and had gained his promise that I should build a sloop of war on my own plans, and command her during the trial. I next visited Sir Charles Paget at Fairoak Lodge, near Petersfield; and went on manning my brig, in the meanwhile.

My friend Mr. Vernon, ever active in his good offices towards me, was particularly so regarding my proposed sloop of war. He even offered to stand security, and to purchase her from Government if she was rejected after trial. The Navy Board, however, exhibited feelings of illiberal jealousy, and were exceedingly angry with my tract on *Naval Architecture*. Mr. Vernon then col-

* Vice-Admiral the Hon. Sir C. Paget died 1839, in command of the N. American station.

† Admiral the Hon. Sir T. B. Capel died 1853. The Royal George, a yacht of 330 tons, was built at Deptford, 1817, by Sir H. Peake.

lected the opinions of several eminent men, and gave me their statements in writing. I gained the ear of Sir George Cockburn; and Lord Melville was very civil; but the difficulties interposed by the Navy Board kept back my work. They went so far as to insist on Mr. Vernon's signing a bond for 20,000*l.*; which he indignantly refused.

In the Calliope I made frequent trips to Jersey, to supply the officer superintending and protecting the oyster-fishery with provisions. I also carried my sister Higham* and my niece Eliza thither. After this, I was called to London to attend the Colonial Office; and was consulted about the ports of Malta; which gave me an opportunity to show my plans to the First Lord, and the whole Board of Admiralty. The Secretary, Mr. Croker, questioned me; but he appeared not to understand the subject. After the Admiralty had given, and then withdrawn, their permission, and the matter seemed at an end, Mr. Vernon succeeded in getting them to allow me to build without his finding security.

I made great alterations in my brig, the Calliope, placing the rigging farther aft, throwing out ballast, and stowing the remainder differently; I also changed the wheel for a tiller, and altered all the sails. An experimental squadron being ordered, I had permission to accompany the Brazen †, Harlequin, and Pandora; and we beat them in all points of sailing, to the great surprise of everybody. After this I attended the Dartmouth and Plymouth regattas; visited the Luscombes at the latter place, and returned to Portsmouth. Here the Vernons met me; and my daughter arrived from Malta. We all embarked to-

* Mrs. Higham was half-sister to Sir W. Symonds by his father's first marriage.

† Brazen, 26, built 1808, at Portsmouth, by Sir J. Henslowe. She was used as a church-ship for twenty years, and broken up in 1848.

gether, and went to the Cowes regatta; bad weather. My son Tom, whom I had got into the Naval College at Portsmouth, in the month of April, came with me to Cowes, and then returned. The Vernons went off to town, taking my daughter with them. Having become acquainted with the Marquis of Anglesea, he gave me a sail in his yacht, the Pearl, and promised to support me with regard to my sloop. Lord Yarborough embarked in the Calliope, and accompanied me to the Portsmouth regatta. Afterwards I took in the Whitbys, and we all sailed together to Jersey and to Torquay. Here Lord Yarborough took the opportunity to see his son at Lympston, near Topsham, while I made a run to Exeter to call on my friend Tucker, living at Alphington. We then returned to Portsmouth, where the ladies and Lord Yarborough debarked.

I was next sent to command the Jersey station, to watch the oyster fishery, a junior lieutenant being added to the Calliope, and the cutters, Starling, Scorpion, and Resolution, placed under my orders. We proceeded to Jersey, where I had communications of an official nature between the Admiralty, the Admiral, the Governor of Jersey, and the French authorities. The season being past, the fishermen had finished their labours, and I was on the point of returning, when, on 11th October, 1825, my appointment as Commander reached me, dated 4th October. I sailed immediately for England, and made over the Calliope and Royal George to Lieut. (now Commander) Powney, Sir Michael Seymour * being captain in succession to Captain Capel.

After this I took up my quarters on board Mr. Vernon's yacht, and my sloop of war's lines were at length commenced. Went to town, and saw the Marquis of Hastings. Settled about my daughters going to school;

* The father of Rear-Admiral Sir M. Seymour, now Commander-in-Chief in China.

then carried Colonel Browne down to Portsmouth and Newlands, where my sister, Mrs. Whitby, lived.* Had a correspondence with Sir G. Cockburn (then a member of the Board) about displacement; got leave to go abroad, and was allowed a passage in the Mastiff, surveying ship. Previous to starting, I lived frequently on board the Cornwallis and Transit yachts, going backwards and forwards between Lymington and Portsmouth. I also made another visit to London, where I met the Vernons, the Marquis of Hastings, and the Duke of Athol, and saw my daughter. Returned with Mr. Vernon to Portsmouth, and went on with my ship.

Carried my baggage on board the Mastiff, and sailed on 1st January, 1826, for Malta. Arrived at Gibraltar on the 12th, and was well received by the Governor, Sir J. Don. Lived at Mr. Sweetland's for a week; went out to San Roque, and explored the cork woods, &c. &c. When the Falmouth packet arrived from England, I embarked on board the Kingfisher, Lieut. W. Poore, and sailed, on the 22nd, with an easterly wind, which continued, as we worked along the coast of Barbary. Here we anchored among the Zaffarine islands; a capital haven. Saw Majorca on the 6th February, and were becalmed off it. Afterwards, when becalmed to the northward of the Esquerques Islands †, we found a strong current setting to the south, which made us pass to the south of them, close to Cape Bon. On my arrival at Malta, I found my family, happily, all well; resumed my office; and was well received by the Governor. After a few weeks' stay the Marquis of Hastings made arrangements for the performance of

* Newlands, near Lymington, was settled by Admiral Cornwallis on Mrs. Whitby, and at her death in 1850 came to her daughter, Mrs. F. West.

† On the Esquerques, or Skerki Reef, the Athénienne, 64, was wrecked, the night of 20th Oct. 1806; when, out of 475 men, only 124 escaped. Captain Symonds, while at Malta, sent in a plan for raising her hull.

my duties, and I got leave to go home to build my Columbine.

Sailed with my wife, eldest and two youngest sons, in the Susan schooner, and arrived in four days at Genoa. Got *pratique* immediately, and proceeded by *vetturino* to Switzerland. Arrived at Changins, on the Lake of Geneva, the residence of Count St. George, Major Bayley being our fellow-traveller. While here we paid a visit to Geneva, and to Lady Mary Stanley (Captain Maitland's sister), living in that neighbourhood. After a week's stay, leaving my wife and my two younger boys, Anthony and Jermyn, who were to be sent to Gottstedt school, near Berne, I departed, with Major Bayley and my eldest son, in a hired *voiture*, to Paris and Havre. Introduced Willy to his uncle, Edmund Luscombe, and then repaired to Southampton and Portsmouth. Took lodgings on Common Hard, and, after seeing relations and friends, proceeded to dockyard, where I saw Columbine in frame. Visited Lord Vernon * at Ryde. Lady Vernon was very kind to my son, and put him to study, with a clergyman, at Ryde. After this I went to Jersey, and remained a few days at Trinity Manor with Sir P. C. Silvester, my wife's brother. Ordered repairs at Patrimoine, and made preparations for making it our future abode. Returned to Portsmouth.

The Cracker cutter, with two others, had been built by the Navy Board, by order of the Admiralty, at my recommendation, for the use of the oyster fishery at Jersey. Such models were never before seen! Being recommended by me, they were considered to be of my planning; an idea which was industriously kept up and encouraged by my opponents at the Navy Board and in the dockyard. Every one, however, was ashamed of them; and I was called in by Sir G. Martin and Sir G. Grey to take notice of them, and clear myself from the

* Henry, third Lord Vernon, who died 1829.

imputation of having the slightest hand in their construction.

I went to sea in Lord Vernon's Transit, in company with the Cracker, but we were soon obliged to leave her in Weymouth harbour. She was so unsafe a tub that officers and men were afraid to go out in a common breeze in her. I was compelled to write a long letter to the Admiralty, and report on the total inefficiency of this disgraceful vessel; and succeeded in clearing myself so thoroughly of the calumny and odium heaped upon me on her account, that I had immediate orders from the Admiralty to build a cutter, and to fit out a second, which was bought at Gosport, and called the Cracker. Mine was named the Sylvia, and measured seventy tons. She was launched in 1827.

My reason for recommending small vessels of this description arose from my observations on the localities within the bounds of the oyster fishery, while commanding the Calliope, on the Jersey station. I noticed that the French cutters, being of light draft of water, were enabled to make use of Chausey, or Chausée, as an anchorage; while our long-legged cutters were necessitated to bear up every evening, either for Grouville Bay, in Jersey, six leagues off, or Cancale Bay, on the French shore, a distance of four leagues; or, if calm, to risk a night in the neighbourhood of the islets,—a course beset with difficulties and dangers. I therefore advised small cutters, not drawing above 8 ft. 6 in. water, to be stationed there, and to be attached, merely during the oyster season, to the sloop of war appointed to protect the fishery.

The Navy Board made every difficulty both with regard to the Columbine and the Sylvia; as I had been led to expect, from the opposition of Sir Byam Martin*, the Comptroller of the Navy. Though the Ad-

* Admiral Sir B. Martin died 1854.

miralty had approved the plan of the Columbine, and ordered it to be commenced, yet when I called at the Navy Board with it, as a compliment due to Sir Byam, he exclamed, "I'll not look at it, sir; you may leave it on the Board table if you like." He threatened in plain terms to oppose me in every stage of the business, and said, that I should never build her if he could prevent it. I, of course, thanked him for his courtesy, but declined to leave the plan.

Months rolled away; but at length, in December, 1826, in spite of every obstacle, the Columbine was launched at Portsmouth. The Duke of Portland, to whom I had been introduced by Lord Vernon, saw her while on the stocks. He fell in love with her appearance, asked me for her lines, and immediately commenced a yacht at Troon, in the North, like her, on a reduced scale. From this time he became my steady friend.*

* William Henry Cavendish, fourth Duke of Portland, died 1854. He took the name of Scott-Portland upon his marriage with the eldest daughter of General Scott, of Balcomie, in 1809.

CHAP. III.

1827—1831.

AUTOBIOGRAPHY CONTINUED. — SUCCESS OF COLUMBINE. — MADE POST CAPTAIN. — PLANS A HARBOUR OF REFUGE FOR THE CHANNEL ISLANDS. — RESIGNS HIS CIVIL APPOINTMENT AT MALTA. — BUILDS THE PANTALOON FOR THE DUKE OF PORTLAND. — VISITS THE HIGHLANDS, ETC. — THE VERNON ORDERED TO BE BUILT. — APPOINTED SURVEYOR OF THE NAVY. — END OF THE AUTOBIOGRAPHY.

When ready, I commissioned the *Columbine*, 4th December, 1826, and applied for Lieutenants J. Welch * (as senior), and E. Wilson. My son Tom, and my nephew Louis Tindal, joined as mids. I was ordered under the command of Sir T. Hardy, whose flag was hoisted in the Pyramus frigate. The Challenger, Wolf, Tyne, Satellite, Acorn, Sapphire, and Alert † were my competitors; and the Trinculo also joined in the first cruise. Although the Columbine, upon the whole, was very superior to the rest, I was rather disappointed with her; and upon returning from the cruise found that her masts were too far forward, and

* Lieut. J. Welch died a Commander, 1847. Lieut. Wilson is now a Commander of 1845. Thomas Matthew Charles Symonds is a Captain of 1841, and C. B.; Louis Symonds Tindal (son of Chief Justice Tindal), a Captain of 1852.

† The Pyramus, 42, modelled after the Belle Poule, was built 1810, and is now receiving-ship at Halifax. Challenger, built by Captain Hayes; lost, 1835, on the coast of Chili, through trusting to a bad chart. Wolf, 18, built 1826, by Captain Hayes. Tyne, 22, built 1826, by Sir R. Seppings. Satellite, built by Seppings. Acorn, built by Seppings; lost, 1828. Sapphire, 28, built 1827, by Superior Class of Shipwrights' Apprentices. The Alert and Trinculo were both 18-gun brigs.

that she had not nearly enough canvas. I was thereupon allowed to shift the masts aft a little, and to increase the after yards and canvas.

The Admiral shifted his flag into the Galatea *, and we sailed on our second cruise. It turned out most satisfactorily for Columbine, as she beat all in a manner which surprised the most sceptical among my competitors. We then came back to Spithead.

During the first and second cruises, there was an order for every ship to carry all the water she could possibly stow, with four months' provisions, Victualling Office allowance. One of my competitors, Dr. Inman, Professor of Mathematics at the Naval College, very loudly asserted of the Columbine, that she could not stow the Channel service stores and provisions, and only very little water. He was dismayed, however, when he heard from the Agent Victualler's first clerk, that she had given in receipts for four months' provisions, besides fifty tons of water, and exclaimed, "If Captain Symonds has taken the provisions in at one side, he has thrown them overboard on the other, and Lord Vernon has indemnified the purser." Another gentleman, Mr. Secretary Croker, on sending the order for the squadron to complete for six months' Victualling Office allowance, said, "The Columbine's death-warrant is signed." His astonishment must have been as great as Dr. Inman's, when he heard that she had stowed it, in addition to forty-five and a half tons of water, all below, except *two lime-juice cases*. Thus loaded, she went to sea on the third cruise, and had indisputably the same advantage as on the second; proving by general acknowledgment that she could beat all, 360 days out of 365. Yet still the Navy Board opposed me; and the Admiralty, who were better inclined, found it was impossible to carry me through the business; until the

* A 42-gun frigate, built 1810, at Deptford, by Sir W. Rule, modelled upon the Euryalus, and broken up 1836.

Duke of Clarence became Lord High Admiral.* His Royal Highness at once ordered me to lay down a 40-gun frigate, to carry nothing less than 32-pounders. This was done at the recommendation of Sir T. Hardy.

I was promoted to the rank of Post-Captain, 5th December, 1827, on the day I had served my year as a Commander (employed). Commander C. Crole † superseded me in the Columbine; she was sent to the Halifax station. My time was finished in the William and Mary yacht, at Woolwich. As my ship-building was again suspended through the manœuvres of the Navy Board, I applied for leave to go to Malta.

I passed over to Jersey, and was consulted by the inhabitants about building a pier at Bouley Bay. At their request I wrote a long letter to the Lord High Admiral on the subject of its defences and the formation of a Harbour of Refuge.

Extract of a Letter to His Royal Highness the Duke of Clarence, Lord High Admiral, dated Jersey, 2nd of January, 1828.

"It may not be considered an unseasonable moment to offer to your Royal Highness's attention the situation of the Islands of Jersey, Guernsey, Alderney, Sark, &c., which, although apparently insignificant in time of peace, have been always deservedly regarded as possessing an important and very commanding position in time of war. The French nation formerly had not a port, except dry harbours, between Brest and Dunkirk; at the present moment they are rendering Cherbourg an arsenal of great consequence; and, it is said, they have it in contemplation to fortify Dillette, and to strengthen other places of minor importance on the coast of Normandie, in this neighbourhood. I have resided a considerable time, at different periods, on this island; and the observations which I have

* May 2nd, 1827, succeeding Lord Melville; who (with Sir G. Cockburn) returned to office 19th Sept. 1828.

† The late Captain C. Crole, of 1828. The William and Mary was built 1807, at Deptford, by Sir J. Henslowe, and broken up in 1848.

made, from time to time, and also during my professional employment on these coasts, added to an inspection which I have had an opportunity to make during my detention by the late gales, have confirmed my opinions, as to the necessity of fortifying it. I have, therefore, the honour, humbly, but very strongly, to recommend to your particular attention the situation of Bouley Bay, on the north shore of Jersey, the approach to which is clear and easy; the bottom clean, with good holding-ground; the land-marks conspicuous, and the situation highly defensible. The Local Government are at present commencing a small pier, on which subject some of the inhabitants, most interested, have been pleased to ask my opinion.

"This undertaking serves to show the facility with which an efficient pier or breakwater might be erected, as the coast abounds with large masses of granite, which might be moved at a trifling cost, compared with the importance of the object. I will not trespass on your Royal Highness's valuable time, by pointing out all the advantages which such a work might produce to Great Britain, but will merely offer a few striking circumstances to your attention. In southerly winds, when nothing but steam-vessels could leave the port of England, a squadron, stationed in Bouley Bay, would have the advantage of being to windward of vessels sailing from Cherbourg and the facility of signal-posts established on Alderney, Guernsey, and Sark, would give them intelligence of their movements in a very short period of time. The situation of Jersey favours the advantage of secret information in time of war, from its contiguity to the French coast.

The use of steam-vessels might, more than formerly, favour an enterprise to capture the island, while at present it possesses nothing but dry harbours. If there was a pier in Bouley Bay, advice-boats, steamers or others, might be despatched immediately on the appearance of an enemy. The Post-office, and consequently the revenue, would be advantaged, if packets could lie afloat. Three hundred yards of pier, in six fathoms, at low water-mark, would completely shelter a squadron at all times of tide, would give Jersey an advantage over the whole coast of France between Brest and Cherbourg, and would prevent any intercourse between the western ports and the mouth of the Seine. The population of Jersey is considerably beyond thirty thousand souls, all animated with the firmest loyalty — the males all trained to the use of fire-arms. At present the island enjoys a vast commerce, proportionate to its size, having one hundred and sixty-nine sail of shipping, amounting to sixteen thousand three hundred and nine tons, manned by natives,

who, in time of war, in privateers, have been a scourge to the enemy.

"It is obvious that such an island would be invaluable to the French Government, who have always viewed its prosperity with a jealous eye.

"In conclusion, I trust that your Royal Highness will attribute the offer of my remarks on the foregoing subject to the only causes which could have elicited them — a strong conviction that the subject is one of great national importance, and my humble zeal for the welfare of my country.

"I beg to repeat to your Royal Highness the dutiful offers of my best services, being with every feeling of respect and attachment towards your Royal person,

"Your most dutiful and most devoted servant,

"WILLIAM SYMONDS,

"Captain, Royal Navy."

To this I received the following answer from Sir Robert Spencer, Private Secretary to His Royal Highness, —

"DEAR SYMONDS,

"The Lord High Admiral replies to your letter in the following terms:—'Tell Symonds that I intend to visit Jersey next summer.'

"Yours, very faithfully,

"R. SPENCER." *

I may here add that, three years afterwards, I addressed a letter on the same subject to the Lieut.-Governor of Jersey, at his own request; besides taking further steps at a later period, as will be seen in the course of this narrative.

* Captain the Hon. Sir R. C. Spencer (brother to Lord Althorpe) died 1830. He was a proficient in naval gunnery, and the author of an ingenious catechism known as the "Ninety-nine Questions."—(*O'Byrne.*)

To His Excellency Major General William Thornton, Lieut.-Governor of Jersey.

"Jersey, 23rd February, 1831.

"SIR,

"Having resided many years in this island, and been employed professionally on the coasts thereof, both in peace and war, opportunities to make observations have very frequently presented themselves; and having lately visited the French coast, opposite to Jersey, for the express purpose of gaining information, I trust that I may be excused in offering some remarks to your Excellency on a subject of vital importance to these islands. * * *

"It is obvious that great precautions have been taken also to protect Jersey artificially, by the erection of Fort Regent and a line of Martello Towers, on the generality of places where landing might be effected, save and excepting Bouley Bay, to which I beg leave to call your Excellency's particular attention. By reference to the chart, you will perceive that there is not a sheltered bay or anchorage on the coast of the island, having sufficient depth of water, at low water, spring tides, for even a small frigate, except Bouley Bay, which is capable of holding a large squadron of ships at all seasons. It is defended from the western sea by the point called 'La Belle Hogue,' from the north-west by Sark and Guernsey, besides many rocks and shoals extending far around them, and from the north and east by Alderney, the rocks called 'Les Dirouilles,' and 'Ecrehou,' and the coast of Normandie. I have watched the effect of strong N.W. winds, and have never observed any sea to make a large ship uneasy at her anchors; in which I am borne out by the fact that vegetation grows undisturbed close to high-water mark.

"The approach to the bay is clear, and the bottom clean, with good holding-ground; the land-marks conspicuous, and the situation commanding and most defensible. A small pier has been commenced by the vote of the States of the Island, but until the rock within it has been quarried, it will not prove available, but for boats and very small vessels; although it has stood the test of two winters, and is at present sufficient for men-of-war's boats to water under, whenever the fine stream that runs into the sea all the year round is carried to the pier. * * *

"The breakwater at Cherbourg is advancing rapidly. The anchorage within it is large enough to contain forty sail of the line without difficulty. Ten men-of-war are now on the stocks

there, four sail of the line, four frigates, two corvettes, the eight former under pent-houses, The entrances into Cherbourg are defended by immense forts, 'Hommet' on the west, 'Pelée' upon the east side of the breakwater, which are both considered impregnable, and a strong circular tower is constructing on the centre of the *digue* or breakwater. * * *

I am borne out in the assertion that Bouley Bay is far preferable to Guernsey Roads * as a station for a squadron, by memoranda in my possession for a period of more than a century; from which it appears that large squadrons have continually anchored there to protect these islands.

"Notwithstanding the rocks which surround it, steam-vessels would favour an enterprise to capture this island, while it possesses, as at present, nothing but dry harbours. But if there was an efficient pier in Bouley Bay, advice-boats, steamers, or others, might be despatched immediately on the appearance of an attack.

"The Post-office, and consequently the revenue, would be advantaged could packets lie afloat; and vessels bound to England would not, as at present, sail from St. Helier for Southampton, Portsmouth, or London, with nine hours' tide against them." * * * *

From Jersey I came over to St. Malo, staid there two days, and thence by *diligence* to Rennes. Found the road intolerable, and was tossed about in these carriages like a pill in a box. I was well received at Rennes, by M. de la Villebrun, a friend of Mrs. Symonds.† From this I went to Nantes, and then to Bordeaux. Here I spent three days very agreeably, seeing everything worth seeing; and then, in a *malle de poste*, to Toulouse, where a French *maréchal de camp* received me well, and took me to Captain Mulcaster, a brother officer. Proceeded on to Montpellier, and Nismes, and was gratified with a survey of the latter place. Thence to Avignon and Marseilles. On my arrival at Mr. Turnbull's, the Consul at Marseilles, I found the captain of the Duke of Portland's yacht, the

* Some years ago a breakwater was proposed in Ferman Bay, south of St. Peter Port, Guernsey, to cost 500,000*l.*

† It was at Rennes that Admiral Villeneuve was found dead in his room, when on his way to Paris, after Trafalgar.

Clown, waiting for me. I immediately embarked and proceeded to Nice, where His Grace and family were staying. The death of one of the Duke's daughters kept me there three or four days; at the expiration of which, the Hon. G. Vernon and Mr. Barrington embarked with me on board the Clown; and we proceeded to Malta, which we reached in four days, passing through the Straits of Bonifacio, to the westward of Maritimo, and along the southern coast of Sicily.

We arrived at Malta, 3rd January, 1828; I was well received by the Governor, Sir Frederick Ponsonby, and by all my old friends at Malta. Sir Edward Codrington and Admiral Count de Heiden, with a Russian squadron, were there; repairing damages after the battle of Navarino.* The Count being in possession of my house I took up my quarters with Mr. Sim, the Acting Chief Secretary. In a short time I made a formal resignation of my office of Intendant; sold all my goods and chattels; and sailed in the Calypso government yacht, charged with despatches for the Admiralty and the Foreign Office. While on board I drew a plan of a schooner for the government of Malta, and sent it in the yacht with a note to the governor.

Landed at Hyères, and, accompanied by Mr. Bourchier, private secretary to Sir F. Ponsonby, took a carriage to Toulon and Marseilles; where I met Major Robson, Jack Tower†, and Sr. Mizzi. Proceeded by *malle de poste* to Paris, where I exchanged despatches at the Ambassador's; and went on through Boulogne (where Bourchier left me) to Calais. Thence by steamer to London; landed at Stilwell's. Lord Goderich ‡ received his bag, demanding my address. At the Admiralty, Cockburn declined seeing me; and finding, at length, that there was no chance of the removal of

* Fought 20th Oct. 1827.
† Rear-Admiral John Tower, died 1837.
‡ First Earl of Ripon, in 1833. At that time he was Premier.

the suspension laid on my frigate-building scheme, I set off to visit some of my friends in England; and then returned to Jersey, and commenced farming. The manor house at Trinity being out of repair, I thought of rebuilding it; made a plan, and a new house was constructed agreeably to my design.

At the close of this year I heard of the performances of the Columbine, and of her escape from shipwreck on a reef in the St. Lawrence, owing entirely to her wedgelike form.*

In the spring of 1829, the Duke of Portland encouraged me to prepare plans for building a 10-gun brig, which he offered to construct under my superintendence, at his own expense and in his own dockyard at Troon †, in Ayrshire.

From His Grace the Duke of Portland.

"19, Cavendish Square,
"London, May 15, 1829.

"DEAR SIR,

"Having occasion to trouble you with a letter on one subject, I will write upon two.

"The first subject on which I must write to you is to know where I should pay my subscription to the widow of the late Mr. Frost. The other subject is one which does not press so much, but which, if you give me credit for being as sincere an admirer of your system of ship-building as I really am, will not surprise you. I think it will appear to you very plain that between the necessity of economy and the indisposition of the Navy Board, the Admiralty is not likely of itself to sanction at present any further experiments. In order to force them upon it, it had occurred to me to be possible to build a ship myself; and when built, to offer it to the Admiralty at a moderate price, provided, on trial, it beat a great majority (seven out of ten) of

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* See Correspondence. Extract from a letter at a later period:—"Jamaica, March 13, 1831. Dear Symonds, — Columbine is the admiration of all who look on her. E. GRIFFITHS COLPOYS." Vice-Admiral Sir E. Griffiths Colpoys died in command of the American and West India Station, 1833.

† Troon harbour, one of the best and safest on that coast, was formed entirely at the Duke of Portland's cost.

their own vessels of the same class which might be tried with it. My first idea was to have given full scope to both your favourite ideas, not only of building but rigging, and to have built a ten-gun vessel to be rigged as a ketch. But seeing the great prejudice against that mode of rigging, when applied to vessels of the size of a gun-brig, amongst naval men, and considering the impossibility of prevailing against a prejudice (if such it is), I next turned my thoughts to the equipment of a vessel of a smaller description, between a cutter and a gun-brig. But, as I cannot find out that there is a class of vessels of that description, I have also abandoned that notion.

"I, therefore, have been obliged to revert to the idea of building a gun-brig; and from the inquiries I have made of the usual length of the gun-brigs in H. M.'s service, I have concluded that one built on your plan would approach very near to the dimensions of the Harlequin. This is the present state of my intentions, and I wish in this stage to submit them to your consideration, whether the attempt would be likely to be conducive to the further introduction of your system or otherwise; and if you should be of that opinion, what would be the precautions necessary to be taken to obviate any objections hereafter to be made by the Admiralty.

"I have little doubt that if their consent was previously asked it would be refused. But I do not see how they could refuse a trial of the vessel when actually built, or to take it at a moderate price in case it should display the great superiority which, if faithfully built on your principles, I have no doubt, it would.

"I have not heard yet that my boats are finished; when they are, I should be very glad if you could be tempted to superintend the trials of their respective merits.

"Ever, dear Sir,

"Yours, very sincerely,

"SCOTT PORTLAND.

"Captain Symonds."

In obedience to his Grace's request, I went with him to Welbeck, and thence into Ayrshire, remaining at his seat, Fullarton House, near Irvine, while the plans and specifications were in preparation. In company with Mr. Thomson, the Duke's master shipwright, various experiments were made on models which had been prepared previous to my arrival. Five small vessels of about 10 tons, called Punchinello, Grimaldi, &c., were

built on different proportions as to length, breadth, and depth. Models of the Pantaloon and of a common 10-gun brig were also compared, with reference to stability, capacity, &c. There appeared, on the whole, to be a decided superiority in one of the boats over the rest; and she was the model finally selected for the Pantaloon.

When all matters had been well considered and settled, I bethought me of my return; and after sailing about in all directions with the Duke, visiting the Kyles of Bute, and the several lochs, ruins, and harbours on that delightful coast, I set off in a steam-boat, through the Crinan Canal (across Kintyre), and proceeded among the Western Islands, where the sailing is beautiful, to the Caledonian Canal. The weather was fine, the company agreeable, and the scenery most splendid. I was greatly struck by the Caledonian Canal, that extraordinary and magnificent, but useless, work of art, which here intersects Scotland by a connection of lakes having surfaces of unequal height; and I reached Inverness most exceedingly gratified at having chosen this fine route.

Miss Gordon and Mr. Birch, whom I met at the Crinan, accompanied me from Inverness, by land, to Aberdeen. From Aberdeen I went by a steamer to Leith; and thence to Dunbar House, the seat of my noble friend Lord Lauderdale. Had some shooting with Anthony Maitland at Lauder; and visited Whittinghame; and after a most agreeable sojourn, went off by coach to London. I visited my relations there, and in Hampshire; and returned to Jersey to finish my new building, my family residing at Patrimoine, my old house. Soon after I had finished and occupied Trinity Manor, Mr. Walker purchased Patrimoine. Friends visited us from England.

In February, 1830, with Mr. Walker and my youngest brother, I crossed over in an open boat from Jersey to "Carteret," a place on the French shore which gave

origin to the Carteret family. From this we paid a visit to Cherbourg. Besides many ludicrous incidents which attended us, we were nearly lost on the bar. After visiting the Arsenal, the Digue, or breakwater, which is more than twice the length of that at Plymouth, Forts Hommet and Pelée, &c., we returned by Coutances and Granville. Here we had another adventure, being obliged to smuggle ourselves on board a passage-vessel, before daylight, without passports.

About three months of my stay here were occupied in writing a treatise on the Adriatic, at the desire of Sir Edward Owen, compiled from "Il Costiere del Adriatico." All the public documents accumulated from ships employed there during the war (which were very few) were sent to me by the Hydrographer; but the treatise was principally formed from my own observations and remarks, when there in the Nancy Dawson, in the year 1823.* For this, on transmitting it, I received the thanks of the Board.

"Admiralty Office, July 29th, 1830.

"SIR,

"Having laid before my Lords Commissioners of the Admiralty your letter of the 19th inst., with the Manuscript therein referred to, forming a *Memoir of Sailing Directions to facilitate the Navigation of the Adriatic Sea or Gulf of Venice,* I have it in command to convey to you their Lordships' thanks for the said Manuscript.

"I am, &c.,
"JOHN BARROW."

I was recalled to England in the spring, and required by the Duke of Portland to accompany him again to Troon.

From His Grace the Duke of Portland.

"Welbeck, April 12th, 1831.

"DEAR SIR,

"I think it better to give you a more full account of Sir James Graham's † letter to me and my answer.

* See p. 53-60.

† The Right Hon. Sir J. Graham, Bart., was appointed First Lord of the Admiralty, 25th Nov. 1830.

"After stating his admiration of your plan, he says that they have resolved to wear out all the 10-gun brigs and not to increase the number. He adds, 'That in June an experimental squadron will assemble at Spithead, and among ships of all classes, there will be a 10-gun brig *cut down*, with a single long gun, which we expect will sail. If your Grace would order your brig to the Isle of Wight at that time, we could have a good trial, and I hope you would be pleased to see our *razée* 74's reduced to frigates, and a *razée* 46 reduced to a large corvette.'"

"My answer is as follows:—

"'I am so gratified to learn that you are sensible of the scientific principle on which the Columbine is built, that but for one reason I should not feel disappointed at the result of my application to you. In fact, my object is gained. I happened to be living in the neighbourhood of Portsmouth when Columbine was on the stocks, and I may say that I fell in love with her. I saw that she united two most desirable qualities, *great power of carrying sail*, and great *ease of being driven through the water*; and as it was obvious from her shape that she must also hold a good wind, I felt sure that she could not fail to sail admirably. I was so sure of the principle that, without waiting for the event of her trial, I began a vessel for myself on the same principle — the Clown. Lord Vernon has since built the Harlequin, on the same principle; and neither Clown nor Harlequin has ever met with any square-rigged vessel that could beat them going to windward.'

"After reciting the victories of the Clown over the Pearl and Undaunted, and two French men-of-war in the Mediterranean; those of the Harlequin; and mentioning the good sailing of the boats, I added:—

"'My object then in building this brig was to persuade the Admiralty, by a multiplication of instances, of the propriety of adopting the principles of Captain Symonds; and if you are persuaded of their truth I can wish for no more. My only regret will be the possibility that my vessel, fit only for a man-of-war, may fall into the hands of any power which may be our enemy. I will, however, send her to the trial, not without the hope that, if she answers my expectation, you will see the propriety of her being in no service but that of the King.

"'I think you are quite right to cut down all ships that are top-heavy, but it is melancholy to reflect on the *money which has been wasted in that circuitous mode of building frigates.* If I had the misfortune to be a king, I would have no ship in my fleet that could not sail well; but certainly none that was dan-

gerous, as all the present race of 10-gun brigs is, which you are quite right to extirpate.

" 'If my brig is dangerous I will burn her.'

" This is my answer. I do not understand what is the 10-gun brig cut down, with a single long gun.

" I think this is now our position: there is no chance of the brig being tried as a man-of-war, consequently of having a man-of-war's crew and officers, and stores and guns put on board her. But I presume you will encourage me to fulfil my promise of sending her to the Isle of Wight, if she can be got ready.

" Then how shall she be commanded? It will be of great importance that she should have a good captain. I hear from Mr. Thomson that he has been occupied with repairs much longer than he expected, but that about the 14th inst. he expected to resume operations on the brig.

" Possibly the decision of the Admiralty not to take her into the service may make some difference in the manner of fitting her interior, and consequently she may be so much the sooner fitted out, less being necessary to be done.

" Ever, dear Sir,

" Yours, very sincerely,

" SCOTT PORTLAND.

" To Capt. W. Symonds, R.N."

We travelled from Welbeck to Liverpool, and thence, in the Clown, to our destination. I found the Pantaloon far advanced. My brother Jack joined me in his boat, the Cornwallis, which he afterwards sold. The Duke left us at Fullarton House, which he placed at my disposal. We had a trip or two up the Clyde, &c. I superintended the making of the sails and preparing everything for the brig. And here I received the first intimation of the Vernon.

From Capt. Sir S. J. B. Pechell, Bart.

" Admiralty, April 20th, 1831.

" DEAR SYMONDS,

" I am deputed by the Board to propose to you the building of a large frigate with the under-mentioned qualities:—

" She is to carry 50 guns, viz.,

" 32-pounders on the main deck, 55 cwt.

do. do. quarter deck, 48 cwt.

"She is to be masted as *Barham* class.

"Her magazine is to be amidships, with an occasional abaft in the bread-room, as Barham class.

"Her complement of men will be 475.

"She must stow five months' provisions under hatches, and 230 tons of water in her hold; part of which is to be in such number of casks as will be sufficient for convenience of watering. Her stern is to be constructed so as to admit of equal means of attack and defence with those of round stern ships. And you will be allowed, if possible, to select the Yard in which she is to be built. As you are coming over so soon I shall only add that I am,

"Sincerely yours,

"S. JOHN BROOKE PECHELL.*

"To Captain William Symonds, Jersey."

From the Same.

"Admiralty, May 22nd, 1831.

"DEAR SYMONDS,

"You will probably be surprised at the official letter which has been addressed to you, but I saw so much difficulty would arise from a want of its being placed upon an official footing, that I proposed to Sir Thomas Hardy to address you upon the subject, and to inform our affectionate friends that we had done so. You may now apply to them for any drawing or information you require, and obtain it without the risk of being in a scrape. The sooner you can bring it in the better.

"Yours,

"S. J. B. P."

At length, in the early part of the summer, the Pantaloon was launched and tried against the Clown. After this, we sailed in company to Plymouth, to join the Channel Squadron, under Sir Edward Codrington. We tried immediately, though only three weeks off the stocks; and made a spectacle of the squadron, composed of the Caledonia flag-ship, the Prince Regent, Asia, Revenge, Donegal, Talavera, Barham, Curaçoa, Stag, Pearl, and Charybdis. Our victory was reported to the

* Sir Samuel J. B. Pechell, Bart., at that time Fourth Lord of the Admiralty, died a Rear-Admiral in 1849. He was the author of a work on Naval Gunnery, &c.

Admiralty, after many trials and in all weathers; and I was directed by the Board to prepare plans for new 16-gun brigs, on increased lines of the Pantaloon, Snake, and Serpent.

From Capt. Sir S. J. B. Pechell, Bart.

"Admiralty, July 5th, 1831.

"My dear Symonds,

"I hope you will not lose time about the draft of the frigate, because I think delays are dangerous; and until Lang gets it he cannot be preparing for her. If you behave well you shall have another job; some 18-gun brigs are to be built, and I have begged Sir James to allow you to try your hand; they will be the same length, but to carry 16 guns. Your account of the Pantaloon is very encouraging.

"Sincerely yours,

"S. J. B. Pechell."

From the Same.

"Admiralty, July 14th.

"My dear Symonds,

"While you are cruising, turn your thoughts towards the form of a brig, the same length as former 18-gun brigs, or rather *the same masts and yards*, but to carry 16 guns only. If, however, the additional breadth you will give her, will enable her to carry Dickson's 25-cwt. guns *triumphantly*, of course they are much to be preferred, as they will bear a larger charge of powder and double-shot: the old guns are 17 cwt.

"Yours, sincerely,

"S. J. B. P."

From the Same.

"Admiralty, July 26th.

"My dear Symonds,

"The accounts you give of Pantaloon are so highly satisfactory that I think you may now have your own way. The only difficulty in making a packet of her, and of building others after her, as she now is, is, that we shall be obliged to allow her more men, which will increase the expense of her establishment. We have determined to let you build (in a merchant's yard) a 16-gun brig on Pantaloon's increased lines; but again, we must restrict you in masts and yards. Yet as the old class of 18-gun brigs is almost worn out, there is no

objection to alter the proportion of the masts for the new class; but we think the yards should remain as they are, as the old war complement will be the maximum; and it is possible that her complement may be reduced; so, in consequence of having one gun less on her broadside, you must therefore, in laying down the 16-gun brig, attend to this, as I conclude the length of an 18, with the beam *you would give*, will require a great increase in the size of her masts and yards.

"Yours, sincerely,

"S. J. B. P."

I received various letters of congratulation, of which these are extracts, on the performances of the Pantaloon:—

"Admiralty, July 30th, 1831.

"MY DEAR SIR,

"I am delighted, but certainly not in the least surprised, at the success of the Pantaloon.

"GEO. ELLIOT." *

"Prince Regent, July 21st, 1831.

"MY DEAR SYMONDS,

"I am happy to repeat my congratulations on the successful result of all your trials with the Pantaloon, which has created the admiration and astonishment of all the squadron, and in particular of

"Yours, very sincerely,

"W. PARKER." †

"Admiralty, July 26th, 1831.

"MY DEAR SIR,

"I return you Parker's letter, but it is not one bit stronger than the opinion of everybody who has written on the subject. I hope you are secure now, and that we shall soon have a ship of each class of your building,

"In haste, believe me, yours most sincerely,

"GEO. ELLIOT.

"To Captain William Symonds, R.N."

* Captain (now Admiral) the Hon. G. Elliot, at that time Secretary of the Admiralty.

† Now Admiral Sir William Parker, Bart.

The following is an extract of a letter from Sir Edward Codrington to the Duke of Portland on the Pantaloon's victory: —

"Off Falmouth, July 27th, 1831.

"Your Grace will be glad to hear that Symonds is to build a brig to carry the same masts and yards as our present 18-gun brigs, choosing his own length and breadth. She is to carry two guns less than they do, however. My cruise is to be extended 'till the 12th of August. Symonds went to leeward, at 10 o'clock, of the whole squadron, to try the Asia and Revenge; whilst the three frigates underwent their trial, starting upon our lee beam; and after beating the former, he went right up to windward of the frigates, and wore round them at half-past 2. I recalled him within signal distance to give him the above intelligence.

"With great esteem, your Grace's

"Very faithful and obedient,

"EDWD. CODRINGTON.

"To his Grace the Duke of Portland."

From Capt. Sir S. J. B. Pechell, Bart.

"Admiralty, August 3rd, 1831.

"MY DEAR SYMONDS,

"Sir Edward Codrington's report is so satisfactory of the Pantaloon, that I suppose her superiority is not questioned in the squadron.

"You have now only got to triumph over Tweed, Victor, Royalist, and Brisk, to complete your victory over every class. I hope when that is done you will devote a little of your time to the frigate, as I am anxious she should be put in hand. We shall then be able to think about the smaller craft.

"Yours,

"S. J. B. PECHELL."

From Sir James Graham to the Duke of Portland.

"Admiralty, July 28th, 1831.

"MY LORD DUKE,

"Your last account of the performances of the Pantaloon, in a heavy sea and strong gale, is most satisfactory, and proves the superiority of the principle of building, and the proportions adopted, by Captain Symonds. I have asked him

to send us lines for a 16 man-of-war brig, which I propose to build by contract in a merchant's yard, without delay. With respect to the purchase of the Pantaloon, if your Grace is still willing to sell her, the public must pay for her the full value after her recent exploits; and I should be glad to know what price you put upon her.

"We have at Portsmouth, the Victor, an 18-gun brig, which was a sloop, and the Tweed, a *razée* 28, which we are very anxious to have tried. They will be ready for sea by the 5th of August; and we have written to Sir Thomas Foley to give orders that they may be tried with your Grace. I hope it will not be inconvenient to you to sail with them outside the Wight, and I shall be obliged by your report of their merits after a trial with the Pantaloon. I am always, with sincere regard,

"Very faithfully yours,

"J. R. G. GRAHAM.

"His Grace the Duke of Portland."

The Pantaloon was purchased into the service the same year, and I was sent to Woolwich to superintend the building of the Vernon (she was first planned on board the little Clown), being allowed a salary, office, and draftsman for the purpose.

The succeeding year, 1832, matters being in train for placing the Navy Board, Transport and Victualling Boards, under the Board of Admiralty, they were dissolved, and, with the new arrangements, I was appointed Surveyor of the Navy. Mr. Nolloth, master shipwright at Portsmouth, resigned on superannuation; Mr. Seaton was required to do the same; Mr. Hawkes was sent to Pembroke, *vice* Peake, who was placed at Portsmouth, *vice* Nolloth; Mr. Blake to Sheerness, *vice* Seaton. The subsequent death of Mr. Peake sent Mr. Fincham to Sheerness, *vice* Blake; and Blake to Portsmouth, *vice* Peake; both at my recommendation. At some Yards matters went on smoothly, but at others I experienced a good deal of secret opposition.

Sir Thomas Hardy had the control of my department at the Board, and, with his approval, the Bos-

cawen, at Woolwich, was ordered to be metamorphosed into a 70-gun ship on my construction; the frames of the Statira and Tigris were ordered to be taken down at Devonport; and many frigates and brigs on the old principle were suspended. The Royal Frederick's frame, prepared at Portsmouth, was adapted to my shape. These and other necessary alterations were at the bottom of the violent enmity with which the disappointed followers of Sir George Cockburn and Sir Byam Martin, and the admirers of my predecessor, pursued me.

During the period that Sir Thomas Hardy, whose judgment and seamanship could not be excelled, held office as First Sea Lord, he caused the construction of the Vanguard, Goliath, Collingwood, Victoria, Algiers, Royal Sovereign, Cumberland, Pique, Flora, Sybil, Chesapeake, Active, Constance, Cleopatra, Carysfort; and a long string of sloops, similar to the Snake and Serpent; besides four corvettes, to be called the Dido, Daphne, Calypso, and Coquette; with Gorgon, and several other steam-vessels.*

* See a complete List of Sir W. Symonds's ships and vessels at the end of this work.

CHAP. IV.

STATE OF SHIP-BUILDING BEFORE THE SURVEYOR'S TIME.—ITS EARLY PROGRESS AND SUBSEQUENT DECLINE.—STYLE OF SHIPS IN THE NAVY AND MERCHANT SERVICE.—SCHOOL OF NAVAL ARCHITECTURE.—RESPECTIVE CLAIMS OF THEORY AND EXPERIENCE CONSIDERED.—THE POINTS OF A GOOD SHIP.—PARTICULARS OF A FIRST-RATE.—HIS TRACT ON NAVAL ARCHITECTURE.

THE Surveyor's autobiographical account of himself ends here. Before attempting to fill up the outlines of the remainder of his life, from the few meagre hints which follow in his Journal, and from other sources, it will be proper to go back a little for a brief review of the state of ship-building in this country before his appointment; in order to do justice to his subsequent exertions in office, and to his claims to be considered as one of the greatest improvers of the Navy.

How much we have discovered for ourselves of the science of ship-building, or how much we are indebted to foreigners for occasional hints or models, is fully discussed in the elaborate pages of Charnock.* In tracing the rise of the naval powers of modern times, it appears that to a certain extent, each proceeded on its own account, beginning with a simple pattern, and making gradual advances and improvements on this, as circumstances and experience dictated. In spite of subsequent failures, England was one of the first to perfect the art. At the same time, in the three centuries which had elapsed since the establishment of the Royal Navy as a separate branch of service by its

* CHARNOCK'S *History of Marine Architecture.* 3 vols. 4to. 1800.

founders, Hen. VII. and VIII., the first half is incomparably the most fruitful in substantial improvements. So much progress had been made in one generation, that Queen Elizabeth's navy was able to meet on equal terms and to destroy, the fleet of the greatest naval power in the world. In the pictures of that memorable event the native limner may have used a little pardonable art in making the English ships very small in comparison with the towering Spaniard; but that they were certainly much inferior is proved by their tonnage.* Under Cromwell, whose negotiations abroad were always backed by a ship of war, as the *ratio ultima regum*, and under James II., who, however despicable as a sovereign, was a real lover of the Navy, and a brave and determined sailor †, great advances were made by the Petts, father and son. Phineas Pett built and afterwards cut down, the Sovereign of the Seas, — a great and unwieldy monster, pierced for 160 guns — into a safe and fast ship. His son, Peter Pett, introduced the first frigate, the Constant Warwick, built 1646, for Lord Warwick, at Ratcliffe.‡ He took his

* English fleet—197 ships, 29,744 tons, 15,785 sailors. Spanish fleet—132 ships, 59,120 tons, 8,252 sailors, and 24,000 troops."—Sir J. SINCLAIR'S *Progressive Strength of the British Navy.*

† PEPYS'S *Diary* abounds with numberless instances of the Duke of York's care for the service. He first taught the fleet to form the line of battle, and gave it the earliest code of sailing instructions.

‡ His monument, in Deptford Old Church, records this. He introduced convex lines in the immersed part of the hull, with the studding and sprit sails: and, in short, appears to have fully deserved his character of being the best ship architect of his time. The Constant Warwick was 85 feet on the keel, 26½ feet beam, and only 13 feet deep. But the first genuine frigate (says James, in his *Naval History*), *i. e.* one with guns on a single whole deck, quarter-deck, and forecastle, was the Southampton, a contract ship of 671 tons, built at Rotherhithe, from Sir T. Slade's lines. At this time the tonnage was properly calculated from the length, breadth, and *depth.* She was a good sea-boat, and a prime sailer. The word, however, was of much earlier date. George Sandys, the traveller, says (p. 2 of his *Travels*, 1610-12), that the Adriatic pirates "gather such courage, that a little *frigot* will often not fear to venture on an *argosie*," which always means a ship of burden.

model from a French *frégat*, which he had seen in the Thames, "as his son, Sir Phineas Pett, told me" (Pepys, in the *Memoirs of the British Navy*). She was an incomparable sailer, remarkable for her sharpness and the fineness of her lines; and many were built like her; but so narrow, as Pepys complains, that their ports stood only three feet above water, and they carried but ten weeks' provisions.

It was about this period, when Sir A. Deane had shown the use of displacement, that our shipwrights were considered so famous that they were forbidden to teach their art to foreigners; and Sir W. Temple could boast that, "The English keep their neighbours in awe, by the strength of their oak, the art of their builders, and the invincible courage of their seamen." Voltaire, who liked the English, confirms this opinion by a remark in his history of Peter the Great. The Dutch builders (he says) taught the Czar only their method and routine: "il connut mieux l'art en Angleterre; les vaisseaux s'y bâtissent suivant des proportions mathématiques."

But here our builders rested; and for the next century and a half, no material advance was made in the science, beyond building larger ships, classifying their sizes, and effecting some improvements in details, frequently by altering old and infirm ships for the worse. Various causes may be assigned for this. The Naval surveyors were seldom better than working shipwrights promoted for their experience and practical skill. There is scarcely a name on the list of any eminence as a designer or a writer. Those who ordered ships at the Board were busy politicians, or amateurs without a knowledge of science, or sailors too impatient of innovation to regard improvements. The arts of design, to which class Naval architecture belongs, were at this period suffering from neglect or the influence of a vicious taste. The old navigation laws had the usual numbing

effects of a close monopoly. Some excuse, too, may be found in the almost incessant wars in which the country was engaged; which yet had this advantage, that they helped to supply the Navy indirectly with a number of ready-built foreign ships of good construction, equal to its increasing wants. Contributions of this sort came in from every quarter. Content with Rob Roy's "good old rule, the simple plan," we let foreigners, under the guidance of Bouguer, Chapman, and other eminent writers, build good ships, and then we took them away with our bad ones, if they came near enough; so that it was well said, that every victory which brought honour to our sailors, was a stigma on our shipbuilders.

Charnock observes, in general, that when the French captured an English ship, they either put her on a lower rating or threw her aside. Their foundered or wrecked ships were invariably British built. When we were in chase, the French prizes of the squadron took the lead; and it was the enemy's British built ships that we caught. Whenever we caught French built ships, they became the prime favourites of the fleet; every officer desired to command them; and (as some consolation for our inferiority in one respect) the French never recovered them again, because we knew how to handle them better.

After capturing them, we proceeded to build upon their lines in a negligent sort of way, copying some feature or other upon an independent system of our own, without reference to fixed principles. The Leviathan, for example, was copied from the French Courageux, taken 1764. The Myrmidon, Hermes, Ariadne, Valorous, Hind, and Larne, were copies of the French Bonne Citoyenne, a long corvette of 20 guns, captured 1796. The Tonnant, another model, was captured at the battle of the Nile. The Impétueux, taken by Howe from the French, 1794, and the Spanish San Josef, taken (along with the San Nicolas) by

Nelson in St. Vincent's action, were both handsome ships; particularly the latter, before she was pulled to pieces and cobbled together again. The Santa Margaritta was another; she was taken from the Spaniards by Commodore Johnstone, 1780; and the next year, under Captain Salter, off a lee shore, she captured L'Amazone, with the French fleet close at hand. L'Egyptienne, taken 1800, was a beautiful sailing frigate, but afterwards condemned. Fifteen frigates were built upon the lines of the Piedmontaise, taken by Captain Hardinge in the St. Fiorenzo, 1808. The French and Spanish ships, Foudroyant, Princessa, &c., served as models to the Triumph, Valiant, &c., with increased beam.* Out of the 140 ships, in the first to the fifth rates, on the Navy List, fit for service, even as late as 1850, there were upwards of *fifty* copied from foreign models, viz.:—nine 80-gun ships, modelled on the Canopus, or French Franklin, a handsome ship taken at the Nile, afterwards altered for the worse, against the remonstrances of the best seamen, at a cost of 90,000*l.*†, and broken up 1848; five, copies of the Danish Christian VII.; seven 44's, copies of the French President; seventeen 42's, copies of the Leda—the fruitful mother of about thirty English ships. The French ships thus copied, had in general a flat floor. Their old

* Many of the best Spanish ships are said to have been the production of Mullens, an Irishman, who went over to Spain, and offered his improved plans to that government, after having failed with the English Board of Admiralty. The average length of these copies was $3\frac{1}{2}$ to 1 of beam; but the general average, immediately before Captain Symonds's time, had increased to $3\frac{3}{4}$ to 1.

† "A great part of the national debt," said Captain Rous, in the House of Commons, "has been incurred in building ships and *pulling them to pieces.*" The cost of repairs is, or was, enormous. The Victory, in fifteen years before and after Trafalgar, cost 143,600*l.* in repairs. She was built for 97,400*l.* Twenty-three 74's (according to a return in 1814), which were built for 1,068,751*l.*, cost in repairs, after one to eight years' service at sea, 1,148,730*l.* Hence, it is found to be more economical to build new ships than repair old ones.

Ville de Paris was styled by St. Vincent, the "*ne plus ultra* of first rates."

Among native productions may be mentioned a class of two-decked 44-gun ships, built for frigates in 1744, but so crank that they were turned into store ships.* Some good ships, however, were built at home—as the Victory, Nelson's ship, which dates from 1765, and is, therefore, the oldest ship but one in the navy, but so patched and repaired that scarcely a plank of the original vessel remains in her; the Neptune, 98 guns, built 1797; the Cambrian, 44, and the Endymion, of the same date; all handsome models. The Caledonia is another. In 1793, Earl Spencer, the First Lord, reduced the high square stern and long raking stem to a more reasonable size, by cutting down useless ornaments, &c.†

At a later period, every Board of Admiralty was seized with "a building mania," as Sir C. Napier says.‡ Sir Joseph Yorke produced a set of corvettes, longer and narrower than brigs, none of which answered; and they were sold out of the service. Then came the "Forty Thieves," so named by him in joke, a small class of 74's; but in justice to the designer, Sir H. Peake (who copied them from a French ship), it must be added that his lines were altered by the Navy Board, and the vessels were contract-built. Lord Melville built half a dozen "fir frigates," which "neither sailed nor stood under canvas." The 22-gun and

* JAMES'S *Naval History*.

† Lord Spencer had the glory of introducing *vaccination* into the fleet (on which occasion the medical officers presented a medal to Dr. Jenner, with the motto from Horace, "Alba nautis stella refulsit,"—"The white star—the star of hope—shines on the sailor once more;") and was First Lord while three great and important battles were fought, viz., St. Vincent's, which saved England from an intended attack; Duncan's, at Camperdown, which saved Ireland; and Nelson's, at the Nile, which saved India.

‡ In his *Letters on the Navy*, 1851.

28-gun donkey frigates* "could neither fight nor run away;" it was dangerous to be on board them; and the bad sailing of such vessels was the chief cause of our ill success in the American War. The old 10-gun brigs, or "floating coffins," as they were significantly styled, were equally dangerous and unsightly. They had no room to fight their guns; no air between decks, which were only five feet high; extra provisions and stores were piled above hatches; and the fastest of them sailed no more than eight or nine knots. Some of them were employed as Falmouth mail-packets.†

It must be allowed, however, that, during the war, the price of timber and the necessity of economy tended to keep ships down. For example, in order to use up small timber as much as possible, the frame of the Talavera line-of-battle ship was built of timbers properly meant for frigates, joined together by circular coaks, or pins let into sockets.

Such was the state of the Navy. As to the style which prevailed in the Merchant Service, it may be described in a few words. With rare exceptions, their ships were flat bottomed, wall sided, and top heavy, with every disadvantage belonging to such a peculiar mode of construction. It was hardly a joke to say, as it used to be said, that merchant vessels were built by the mile, and served out by the yard; so that, when a ship was wanted, a length was cut off from the block, to which a head and stern were clapped on. She was then measured for her registered tonnage, and immediately loaded with one half or more beyond the quantity it was certified she could carry. Her burden being computed without regard to depth—according to a

* There were twenty-eight of these donkey frigates, of 500 tons each.

† Of 64 of these unfortunate craft, built after the war, 4 foundered at sea, 6 of the packets were lost, 7 were reduced, 35 broken-up or sold, 12 lent to the coast-guard.

plan opposed to common sense and the practice of every other state—it was the direct interest of her owner to build a long, deep, lumbering ship, in which every good quality but bulk might be dispensed with. Though she sailed like a tub or a Thames sand-barge*, she was pronounced fit to go to any part of the world. Unprotected Yankees went out singly, and made it their business to sail fast; but whether fast or slow mattered little to the independent British merchantman, because of the protection he could reckon upon from convoys. It appears from his pamphlet (to be mentioned presently), that it was the defective construction of merchant vessels more especially, and the indirect influence which their vicious style had upon the style of ships in the Navy yards, that originally drew Captain Symonds's attention to Naval architecture. The first great step towards a reformation was brought about by the new Tonnage Bill, of 1836.

No branch of art is so overlaid with traditional prejudices as ship-building; and it is to the operation of these prejudices through several generations, to the influence of absurd and restrictive laws, to the continual and systematic impediments thrown in the way of improvement by a bigoted and obstructive Navy

* "Tardiores quam corbitæ sunt in tranquillo mari."—PLAUTUS. Corbita, from corbis, a *pannier*, or basket; so that there was a classical precedent. By the old rule, a ship did not pay according to tonnage, but according to a fictitious measurement short of the actual burden; in other words, "Government imposed a tax of 1*s.* and took 9*d.*, granting a receipt in full, like the unjust steward." When such ships were lost, it was put down to *weather*. The rule was to multiply the length by the breadth, and that by the half-breadth. By this rule, the rated tonnage of the Victory, first-rate, was 2164, her actual tonnage is 1839; the rated tonnage of the Hindostan, East Indiaman, was 1248, her actual tonnage 1890; and she was really the larger ship. Under the Act of 1836, the registered tonnage equals the capacity of the ship, or the weight she is able to carry. The new rule, in short, gives the actual tonnage within 5 to 10 per cent.; and as dues are proportioned to the real capacity, ships are in consequence better built, now having more stability with less ballast.

Board *, that we must ascribe the indifferent progress made in our royal and mercantile navies, for more than a century after the time of James II.; from whose reign, curiously enough, we can trace a direct line of Surveyors of the Navy.

To discover a remedy for this inferiority, the Committee of Naval Revision of 1806, advised the establishment of a School of Naval Architecture, for the education of a more skilful class of trained shipwrights.† Finding that no provision was taken that apprentices who might in time rise to the rank of Surveyor of the Navy, should possess even a common education, they recommended, not unreasonably, that the men upon whom rested the complete direction of the construction of ships, which involved the safety of the empire, should receive instruction in mathematics, mechanics, hydrostatics, and the science of ship-building generally. A School for a superior class of shipwrights was therefore established at Portsmouth in 1811; and in 1816 was incorporated with the Naval College. Above forty students, of scientific attaiments, passed through it at various periods, with excellent certificates from Professor Inman; but this well-meant scheme was, from the beginning, unlucky. The students became clever ana-

* While the French encouraged improvements from every quarter, the Navy Board officially censured ingenious officers who through an honest zeal pressed their plans too warmly. Instances of this are on record.

† They remarked that, where we have followed the models of the best French ships, they have proved the best in the Navy; but when we have tried to improve on them, from mistaking the true principles of their theory, the alterations have done harm. They were adopted on no certain principles, but ships were constructed on the chance that, out of several made, one might turn out superior. The consequence was, that each builder suggested some (fanciful) change in the figure,—a little more sheer, a little more beam, more height between decks, &c.; without considering how all this alters the line of floatation, or centre of gravity, and affects her sailing or stability; besides the difficulty of repairing damages, fitting spars, &c. to such a variety of irregular models.

lysts, and wrote valuable papers on the theory of ships *; but, in spite of the daily practice to be acquired in the dock-yard, they wanted that experience in managing them at sea, which is essential as the test of theory, and without which its deductions are so much waste paper. Being denied opportunities of exercising their abilities on a suitable field, they had no resource but to direct their knowledge into researches more curious than useful — that is, in the opinion of seamen, who are perhaps too apt to look down upon mathematicians as an idle set of theorists. The amphibious position and handsome emoluments of the students excited the jealousy of the regular officers of the service; and after constructing a few small vessels of little character — as the Volage, Rose, Actæon, Sapphire, Icarus, Orestes — and an ineffectual attempt had been made by the Duke of Clarence, when Lord High Admiral, to revive the School, it was pronounced by the public to be a failure; and was abolished in 1832 as inexpedient and useless. It was said that its members were too proud of their own theories, of which they held a monopoly, to listen with deference to the suggestions of seamen of experience and practical information; and that the "alleged science which failed to accomplish its avowed end was in truth no science at all;" but though the School fell short of the grand object for which it was first established, it is not to be denied that it contributed to diffuse a taste for mathematical investigation in connection with ship-building. That some of its disappointed members should afterwards attack one whom they regarded as a triumphant rival, and do their best to question the validity of his principles, was perhaps only natural.

But the chief cause of the beneficial reaction from the

* See *Papers on Naval Architecture* by various members of the School, edited by Morgan and Creuze.

indifference of former generations, — so monstrous in a country claiming to be the first naval power in the world*, — was the establishment of the Yacht Club, after the peace of 1815, and the interest which men of rank and fortune henceforth took in ship-building, and in procuring the best native models. To this it will be enough here only to allude.

We may now briefly glance at the respective claims of Theory and Experience in relation to this important subject. Boats, the most ordinary vehicles of transport with every maritime people, are distinguished by a characteristic style, which marks them at once to the observer, and which has, moreover, its specific varieties at different places along the same seaboard. Even the wherries down the Thames alter in size and build according to the locality in which they are found. But what an immense difference between the smartest boat and that beautiful piece of mechanism which we call a Ship of War, the fruit of ages of nautical experience and constructive skill! It was a Roman proverb that *Magna navis magnam fortitudinem habet*, a great ship carries a great mind; which, if true of the firmness and endurance of her captain and crew, is still truer of her builder.† One need scarcely climb the open timbers of a first-rate on the stocks, or see her launched into the water with a rush, which to a close spectator is one of the most overwhelming of sights, or swim in her afterwards, "when the yeasty waves confound and swallow navigation up," to appreciate the force of this

* ——— "Ils sont Rois sur les eaux;
Leur flotte impérieuse, asservissant Neptune,
Des bouts de l'univers, appelle la fortune."
VOLTAIRE, *Henriade.*

† "*Illi robur*," &c. "Oak and threefold brass must have bound his heart who first trusted his weak boat to the cruel sea," says Horace, who seems to have as great a horror of it as the Egyptians felt when they abused it under the name of Typhon, &c., because it swallowed their sacred river.

trite remark. It is enough to watch her stupendous form riding at anchor, to convince the beholder that to venture upon dealing with an instrument of such bulk and complexity, as our Navy now exhibits in every class of men-of-war, calls for the possession of uncommon practical knowledge, skill, courage, forethought and abundant resources, in its designer. Every branch of science is laid under contribution to produce his perfect model. She floats in water, she sails through the air, she is driven by steam. Mechanics, hydrostatics, pneumatics, their separate effects and their joint efforts, must be studied, calculated, adjusted and blended together, in due proportions, beforehand, to bring about the desired result.

The problem for a man-of-war may be stated in this form; not that the particulars are taken in the precise order here mentioned, but they come into consideration at some stage or other. Given the number of guns, what shall the ship be?—a frigate, for example. Here we are to consider that every gun must have so much space to turn about in; so many feet on each side, so many behind. This determines, to some extent, her total length and breadth. Each gun requires so many men to work it, which gives the number of the ship's company. So many men must have so much room to stand, manœuvre, mess, and sleep in. For so many guns, there must be so much ammunition; for so many men, such a quantity of provisions and water. Her hull, therefore, must be capacious enough to accommodate her crew, to hold so many casks and tanks, and a magazine; besides a supply of fuel for her engines, if she be a steamer; but, at the same time, her shape must be so "fine," as to promote her speed, which is a point essential to her character.

The length, breadth, and depth of the whole structure, must then be so balanced as to combine these requisites and render the entire fabric strong, firm, and

symmetrical. These dimensions, again, regulate her masts; upon her masts depend the rigging, the length of the spars, and the size of the sails. And thus we arrive at the complete, well-found ship—the noblest triumph of mechanical invention. "I have now seen," said the French Ambassador, M. de Guines, to George III., on board the Barfleur, at Portsmouth, in 1773, "two of the most glorious sights in the world; the King of Prussia (Frederick the Great) at the head of his army, and the King of Great Britain at the head of his fleet."*

A ship's hull is full of bends and curves, of such a shape as are best calculated to strike the water obliquely, and help her on; but their number and irregularity try the powers of the naval architect. His aim is to produce a fabric uniting the greatest number of good qualities, as determined by theory and experience. Two of the most essential are velocity and stability,—the power of going well through the water, and of standing well up in it. If the ship is too light, or "floaty," as old Fuller says, she will upset; if too heavy and deep, she will not sail. To hit upon the happy medium, to adjust the proportions above and below water, so that the ship may float and sail at the right draught, is, in short, the art and mystery of shipbuilding. Here theorists step in to assist us with their investigations†; and the general conclusion to which they have arrived may be stated in a small compass:—

There is a point in the whole mass of the ship, above and below water, on which she may be supposed to

* Aux yeux du peuple Anglais, la marine est l'élément naturel de la puissance Britannique; et les vaisseaux sont les mobiles remparts du territoire d'Albion. Ce n'est pas seulement dans la langage figurée de la poésie, mais dans la langage la plus familière de la conversation, que les Anglais, en parlant de leurs vaisseaux, les appellent avec emphase, *Nos boulevards, Nos murailles de bois* (our bulwarks, our wooden walls)."—DUPIN'S *Voyages dans la Grande Brétagne*, 1816-20, 2me partie (Force Navale).

† BOUGUER'S *Traité de Navire;* and other works.

turn, viz., the centre of gravity of the system, as it is styled; and it is in reference to this that all the calculations of the mathematician are made. A ship is broadest about the middle of her height and the middle of her length; but, in strictness, her greatest breadth, as determined by theory, should be forward of this mid-length; so that her foremost half being the larger, her centre of gravity may be thrown forward. Chapman, the Swedish writer*, as the result of his inquiries, and on the supposition that a ship's hull is made up of parabolic sections, says, that the greatest section or breadth of beam should be forward of the mid-point four, six, or eight times the horizontal distance of the centre of gravity from the same point; the first number for sharp frigates, the last for bluff trading ships.† This gives a fish-like shape, broadest towards the head, —a shape which not only serves to break the force of the water, but actually conduces to speed, though at first sight it would appear to stand in its way. But it is confirmed by the well-known fact that a log of timber always tows best with its *wide* end foremost; and by the repeated experiments of the late Colonel Beaufoy, of Hackney Wick, conducted for a long period at great cost to himself.‡ He found, by drawing different solids through the water, shaped like double cones, clubs, kites, &c., that in general the broadest part should be

* Rear-Admiral F. Chapman, Surveyor of the Swedish Navy, was born, 1721, at Gottenburg, and died about 1810. His father was a Swede, but his mother was the daughter of Mr. Colson, a London shipbuilder. He travelled for information, and at one time worked as a shipwright in Deptford dock-yard. See his *Treatise on Shipbuilding*, translated by Dr. J. Inman, with notes, 1820.

† Page 89 of CHAPMAN'S *Treatise*, by Inman.

‡ Another inference from Colonel Beaufoy's experiments (which were carried on for thirty-six years), is that a solid, with a sharp triangular bottom, meets the least resistance when moving forward, and the greatest when moving sideways; in other words, such a form is the best for direct motion, and for resisting lee-way; and this is the characteristic form of all Sir W. Symonds's ships.

one-tenth of the whole length forward of the middle. Others say about one-sixth. This view is explained by the consideration that, though a ship when "full" forward opposes her broadest end to the water, yet, after once clearing it, she meets with less resistance, since the water thus raised has an immediate tendency to sweep round along her sides and to unite abaft, and so force her on, besides giving more power to the rudder.

To discover the place of this centre of gravity is a very difficult process, on account of the irregularity of a ship's form; and supposing it found, there are other points related to it, theoretically, of which it is equally difficult to calculate the place. Such are, the centre of displacement, or centre of gravity of the part under water, which is clearly somewhere below the centre of gravity of the whole ship; the centre of propulsion or pressure, or the common centre of gravity of all the sails when set; and the centres of immersion and emersion, or of those equal and opposite wedge-shaped parts along the ship's sides, which rise above the water and sink below it when she heels over on her axis of rotation. All these different centres, and the effects they produce on each other, are interesting on purely theoretical grounds.*

Such being the case, where is this centre of gravity upon which so much hangs? Elaborate rules are given for calculating its place, or finding it by actual experiment on board; but even then, at the best, it can be

* To keep the centre of gravity of the ship, so that it may neither ascend nor descend when the ship rolls, it is found that all that is necessary is to give such a form to her sides, between wind and water, that the solids of emersion and immersion may be equal at all angles of heeling. The line joining the centres of these solids should be always parallel to the transverse section in which the centre of gravity is found when the ship floats upright. It is clear that the further the keel is from the axis of rotation, the more the rolling is diminished, and the action of the wind on the sails is safer. Again, the further this centre is from the stern, the better for the rudder, which, as a lever, acts in proportion to this distance.

determined only approximately, after long and tedious figuring; so much so, that in practice its place is assumed by all ship-builders.* These calculations are made on some necessary suppositions, as, that the ship floats upright in still water, and that the position of everything on board is fixed. If the relations once established could be maintained afterwards in their due balance a great step would be made towards a perfect ship; but this is impossible. Difficulties begin at the very outset. Supposing the calculations founded on measurements taken from the designer's drawings, to be performed with the utmost nicety, yet they are all liable to be disturbed in the course of building the ship. Inevitable errors arise in transferring from the drawings to the mould loft†; from the effects of weather on her timbers; from the strain to which they are exposed after launching. The masts may be out of place, the sails ill cut or ill set, the spars and ropes too heavy, &c. A ship, for the best part of her existence, that is, when most usefully employed, is perpetually getting lighter or heavier; she is heeling over, or pitching and tossing; and hence all these nice adjustments are put out. Her burden may be lodged too high or too low: the cargo in the hull keeps the centre of gravity down, the masts and rigging send it up. And though a few tons more or less would not be much in practice, yet it is a great deal to the mathematician, who is bound in each case to begin his cal-

* When found experimentally for the Bulwark and Ajax in 1817, under Dr. Inman, it took two persons *one year* to work it out, for each ship. Dr. Inman also found, that the height of the metacentre (or highest point to which the centre of gravity can rise, without overturning the ship), varied from $3\frac{1}{2}$ feet in first-rates (of the old construction) to 5 and 6 feet in small vessels.—INMAN'S "*Chapman*," p. 249.

† The beautiful luggers and cutters turned out by old builders, whatever may be the practice now, were all done by the eye, without drawings.

culations again, or to supply some impracticable rule for correcting the ship's trim.

It seems evident then, that the wheels and springs of the ponderous machine which eminent theorists undertake to manage, are so various and involved, and their methods of calculation are, of necessity, so intricate, that, however interesting as mathematical exercises, their investigations are of little practical benefit. Without question, it is gratifying to a logical mind to see mathematicians, by a subtle course of reasoning, *à priori*, arrive in due time at conclusions in which men of practical understanding had anticipated them by taking a shorter cut. But what is the utility of ingenious theories which are too fine spun for working-day life,—of formulæ which, like La Grange's for the movements of fluids, "malheureusement, sont ils rebelles qu'on n'a pu jusqu'à présent en venir à bout que dans ces cas *très limités?*"* It is as difficult to calculate the centre of gravity of a statue as it is that of a ship, and for the same reason,—the irregularity of the form; otherwise the process is simply a tedious sum in mensuration, the rules for which are constant. It would be unpardonable in both constructor and artist not to know the principle of the centre of gravity, or to neglect its consideration; but are we therefore bound to say that a sculptor must not presume to carve a statue or set it upon its legs, before he has worked out the calculations for its centre of gravity? To disparage the labours of analysts, on this subject, would be sheer presumption; but we submit that the real state of the question as regards ship-building is this:—It is hard (speaking

* "For veins of science are like veins of gold:
Pure for a time they run,
Then end as they begun,
In nothing but a heap of mould."
8th Probationary Ode.
By the Attorney-General (PEPPER ARDEN.)

rigorously) to calculate these centres of gravity, &c.; and when found, it is harder still to make use of them. Scientific inquiry has indeed advanced, but the difficulty of applying it in this instance is as great as ever, though as much is borrowed for the purpose, as can be conveniently taken. Ship-building, in short, is an art;—not one of the exact sciences. The figure of a ship has never been reduced to a theory, which has determined little or nothing that was not well known before. The true laws of the resistance of fluids, the form of the best angle for parting the water at a ship's head, the dividing lines along her run, are still unsettled. Theory and practice here are still as much separated as the theory and practice of gunnery. And the inference is, not that pure science is misemployed in these investigations, but that the object it deals with is so heterogeneous in its character, the conditions of the problem are so involved and fluctuating, that the results when obtained are too vague and indeterminate to be of practical benefit. Aided by science in general, cultivated minds have produced finer and finer ships; but we are mainly indebted for them to experience and improvements in the arts of construction.

The conclusions of Chapman, one of the best informed writers on this subject, are to the same effect. A constructor, he says (in substance), should know the cubic feet which a vessel displaces, that is, her weight; he should give stability with as little ballast as possible under water; and his ship should carry the greatest tranverse section (the "dead flat," as it is technically called) before the middle. He should *note ships of good qualities.* And after all (Chapman adds), there is an infinite number of ways in which the midship section is drawn, according to the taste or skill of the constructor; while the methods of science are hardly consistent with

the freedom he should enjoy of altering and retouching at will.

It appears, then, that induction from the results of experience, and a careful comparison of the best models, yield the best and easiest solution of this difficult problem to naval constructors.

What does *experience* teach? Experience teaches or proves that the parts of a good ship are these:—She must be so tied together in her frame as to be strong enough to resist the strains occasioned by her own weight and the force of the wind and waves. As a sea-boat she must stand up stiffly under her canvas; run smoothly and swiftly through the water; sail well when going "large" (*i. e.* before the wind) or close hauled; answer her helm, and tack, easily and promptly; not pitch heavily in a "sea," but rise to the wave; carry her stores, &c., well; and above all (in a man-of-war), berth her men comfortably, have room to fight her guns, and float at such a height that, while her upper works are not too elevated, her lower tier may be not less than six feet from the water, so as to admit of working the guns in action, and escape the risk of shipping a sea through the ports.* The constructor must then so model his vessel that she may possess all these qualities, — some of which are opposed to others. Whether she should be narrow or broad in proportion to her length, and where the maximum breadth should be, are at the bottom of all disputes among ship-builders. Captain Symonds contended for a broad beam or greater breadth, just above the water; while his opponents, trained to admire the ships of the old school, were in favour of a narrow or only moderate beam.† He felt that the simple plan of spreading the

* About 7° is reckoned the greatest angle of heeling over, for a ship of war to use her windward guns.

† A *narrow* ship, they say, makes less lee-way; she steers better (though the action of the rudder may be counteracted by the water

beam would produce his favourite-shaped floor, and the other features of a stable, swift, and roomy ship. The average length of ships of war before his time is 3·6 to 3·9 times the breadth. Those of Captain Symonds's ships run from 3·1 to 3·3 times.*

Having settled his length (*i.e.* along the main deck), breadth (*i.e.* the greatest breadth across the middle), and height, — to which standard dimensions all the other dimensions bear a settled proportion, — the constructor must next take care that his ship, when loaded fit for sea, may settle down to the depth or draught of water previously agreed on. To this end it is necessary to find the displacement, or weight of the ship and all on board, before launching. Suppose that a frigate's displacement to bring her down to the 'load water line' (that is, the line described on her bottom by the surface of the water when she is sufficiently loaded) is 2,000 tons. If the men, guns, stores, &c., be 800, then the hull, masts, &c., must not exceed 1200; or she will sink deeper than her constructor intended, and throw out all his designs.

in working to windward); her lines divide the water better; she carries lower masts, with a lighter rig and less sail; and gives less work to the men. And as fewer men comparatively are required, this is one reason why merchant ships of the old pernicious build are sometimes preferred.

* See p. 97. In early writers we can recognise some of Captain Symonds's principles: — "The shipps that can saile best, can take or leave (as they say), and use all advantages the wind or sea does afford; and their mould, in the judgment of men of best skill, both dead and alive, should have the length *treble* the breadth, and breadth in proportion to the depth; but not to draw above *sixteen foote* water; because deeper shipps are seldom good saylers, and very unsafe from our rivers, and for the shallow harbours, and all coasts of ours, or other seas."— *Report from James I.'s Commission* (drawn up by Raleigh?).

"And in the building of all ships, these six things are principally required: — 1. That she be strong built. 2. That she be swift. 3. That she be stout-sided" (*i.e.*, as explained afterwards, "provided with a long bearing floore, and by sharing off above water."). "4. That she carry out her guns all weather. 5. That she hull and try well, which we call a good sea-ship. 6. That she stay well, when bourding and turning on a wind is required."— RALEIGH'S *Discourse.*

This displacement turns on the well known hydrostatic principle, that as a body sinks down in water it displaces a quantity of water exactly equal in *bulk* to the part below water, and equal in *weight* to the whole body. In this sense the immersion is equal to the displacement, and the difference of draught at two periods is an exact measure of the difference of weights put on board. Its right application was first pointed out to English builders by Sir Anthony Deane *, a man of science in Pepys's day; before whose time Raleigh had occasion to caution shipwrights "not to be deceived herein (as for the most part they have ever been), that the ship sink no deeper into the water than they promise." The method of calculating this is the most useful contribution of mathematical science to shipbuilding. That part of the hull immersed is supposed to be cut into several horizontal or vertical sections; their contents are then found separately, and added together, thirty-five cubic feet on the average, being allowed for each ton. From the displacement, the stability at various inclinations may be determined.† The labour attending these

* Deane, who was a Commissioner of the Navy, built the Rupert, "which the king, duke, and everybody say is the best ship that was ever built. He fell to explain to me his manner of casting the draught of water which a ship will draw beforehand, which is a secret the king and all admire in him; and he is the first that hath come to any certainty beforehand of foretelling the draught of water of a ship before she be launched."—PEPYS's *Diary*, 19th May, 1666. It is calculated that a vessel 15 feet long, moving 11 miles an hour, displaces in five seconds a bulk of water equal to the whole displacement or weight; which bulk is at first heaped in front of her, and then flows round to her wake, where it is equally depressed.

† See DR. INMAN's *Formulæ and Rules for making calculations on Plans of Ships*, 1849, with examples for a 90-gun ship; or VIAL DE CLAIRBOIS' *Elements of the Theory of Naval Architecture*, translated by Commander Strange, R.N., 1846. In practice, the displacement is found by noting draughts of vessels of equal dimensions at launching.

The whole subject is treated mathematically, with many valuable practical remarks and suggestions, in a handy little *Treatise on*

calculations is to a great extent superseded by Mr. Edye's *Scales* *, which give the displacement and equipment of each class ship (built before 1832), at a given draught, almost by inspection; including tables of the weight of the timber, iron, copper, &c., in the hull; the masts, yards, rigging, sails, cables, provisions, stores, guns, boats, and of the men, on board. From this work, we gather the following interesting particulars of a standard first-rate of the old class, such as the *Caledonia*, of 120 guns, now moored off Greenwich, for the Seamens' Hospital Ship: —

Dimensions. — Length of deck, 205 ft.; breadth or beam, 54 ft. 5 in.; depth of hold, 23 ft. 2 in.; burden, 2602 tons; distance between decks, 6 ft.; height of midship port (from water), 5 ft. 6 in.; draught when loaded, 24 ft. 7 in. (forward), 26 ft. (aft).

Weight of timber in her frame, 2197 tons 14 cwt.†; of iron, 136

Naval Architecture, pub. 1852, by Lord R. MONTAGUE, a yachtsman, like his father, the late Duke of Manchester. — "The effect of a wind in carrying away spars, or in careening a ship, is much greater on a slow (*i.e.* flat floor) vessel, than on a fast one." His view is, that the watery particles, instead of passing along the surface of the vessel in the direction of the water-lines or horizontal planes, pass in lines which always cut the vertical sections at right angles; and his principal dividing line is settled accordingly on his draught plan. At p. 25 he says: — "Mr. Wanhill, of Poole, has practised, without being aware, the principle which I propose; for when he commenced building, he hauled up his vessels, which had been some time afloat, and observed *where the copper was bright*. The next vessel he built *less full* at that place. And so he did, until he found that the copper was *equally bright* all over." Some curious remarks occur at p. 170, about stowing the ballast on springs, in order to make it *live*, not dead, weight: — "Why, in a chase, do they sometimes put a shot in each hammock, and make every man hold a shot in the hand? To make the ballast a live weight. At Malta there was a race between little sailing boats. One boy slung his ballast under the thwart; there was a slight tumble of the sea; the boat jobbled up and down, but forged away from all the rest, and won. Why was that?"

* *Calculations relating to the Equipment and Displacement of Ships, &c.*, by Mr. J. Edye, First Assistant to the Surveyor of the Navy. An "Analysis of Forms and Equipments," &c. was proposed, in a paper by Mr. J. Major, in the *Annals of Philosophy*, 1825.

† Calculated by taking a cubic foot of seasoned oak at 43½ lbs., and

tons; of copper bolts, 47 tons 14 cwt.; of 4738 sheets of copper, 17 tons 19 cwt.; of mixed metal nails, 2 tons 18 cwt.; of pintles and braces (for rudder), 2 tons 11 cwt.; of lead, 9 tons; — besides 64,458 wooden treenails.

Weight of oakum for caulking, 16 tons 1 cwt.; of 50 barrels of pitch, 5 tons 7 cwt.; of 109 barrels of tar, 11 tons 13 cwt.; of whiting and white lead (for injecting into the frame), 9 tons 10 cwt.; of 400 gals. of linseed oil (for injection), 1 ton 5 cwt.

These make the *total weight of the ship's hull when launched*, 2466 tons 18 cwt.

Weight of lower masts and bowsprit, 52 tons 13 cwt.; of topmasts and yards, 37 tons 1 cwt.; of spare gear and booms, 16 tons 11 cwt.;—making total weight of spars, 106 tons 5 cwt.*

Weight of standing rigging, 29 tons 6 cwt.; of running rigging, 18 tons 2 cwt. (these two items include 30,250 fathoms of rope, $\frac{3}{4}$ in. to 18 in. round); of 940 blocks, 12 tons 3 cwt.;—making 59 tons 11 cwt. †

Weight of 12,517 square yards of canvas for sails‡, 6 tons 19 cwt.; of 7854 yards for spare sails, 4 tons 4 cwt.;—making 11 tons 3 cwt.

Weight of 5 or 6 hempen cables (each 100 fathoms long, 26 inches round), 32 tons 10 cwt.; of 3 or 4 chain (iron) cables, (each 75 fathoms long), 37 tons 3 cwt.; of anchors, 20 tons 16 cwt.;—making 90 tons 9 cwt.

Weight of iron ballast and water tanks, 370 tons; of water, 410

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other woods in proportion. There are upwards of 800 different pieces of timber in the frame. She consumes 5,880 loads of rough timber, which 200 men will work up, in building the ship, in twelve months. A load is two-thirds of a ton. In good soil, an oak, when cut 75 years from the acorn, will contain $1\frac{1}{2}$ loads of timber, of which 60 go to the acre.

"Giant oaks of bold expansion,
O'er seven hundred acres fell,
All to build thy noble mansion,
Where our hearts of oak shall dwell."

CAMPBELL.—*The Launch of a First-Rate.*

* Her main (lower) mast is 39 yards 32 inches long, 40 inches diameter, and weighs $20\frac{1}{2}$ tons. Her main-topmast is 22 yards 34 inches long, and $20\frac{5}{8}$ inches diameter. Her maintop-gallantmast is 11 yards 17 inches long, and $11\frac{5}{8}$ inches diameter. If the length at the load water line is divided in 36 parts, the foremast is placed at $4\frac{1}{2}$, the mainmast at 20, the mizenmast at 30.

† It takes 20 dockyard riggers 300 hours, to fit the rigging and blocks.

‡ Her greatest sail (the main-topsail) spreads 1007 square yards; her smallest (mizen-topgallant) sail 139 square yards.

tons 15 cwt.; of coals and wood, 100 tons; of provisions, spirits, slops *, 296 tons 4 cwt.; of 800 to 900 men and their chests, &c., 102 tons 6 cwt.†;—making total weight of stowage 1282 tons 5 cwt.

Weight of gunner's stores, 39 tons 12½ cwt.; of boatswain's and carpenter's stores, 54 tons;—making total stores for foreign service, 93 tons 12½ cwt.

Weight of 120 32lb.-guns and carronades, 329 tons 18 cwt.; of powder, 33 tons 5 cwt.; of shot and cases, 125 tons 14 cwt.;—making total armament and ammunition, 448 tons 17 cwt.

Weight of the launch, 5 tons 8 cwt.; of two cutters, 1 ton 3 cwt.; of barge, 1 ton 10 cwt.; of pinnace, 1 ton 10 cwt.; of jolly boat, 9¾ cwt.;—making total weight of boats 10 tons 0¾ cwt.

Total weight of the hull when launched (as above), 2466 tons 18 cwt.

Total weight of articles, &c., afterwards received on board (as above), 2142 tons 5 cwt.

Making the *total weight, or displacement, of the ship, when ready for sea*, 4609 tons 3 cwt.‡

Cost of materials for the hull, per ton, 29*l.* 18*s.* 7*d.*; total cost of materials, 77,878*l.* Cost of labour for shipwrights, 4*l.* 13*s.* 5½*d.* per ton, or, including caulkers, joiners, smiths, and painters, 6*l.* 0*s.* 2*d.* per ton; total cost of labour, 15,643*l.* 3*s.*§ Total cost of materials and labour for hull, 93,251*l.* Add, cost of masts, yards, rigging, and blocks, 6873*l.*; cost of her equipment and sea stores, 16,805*l.*; and the *total expense of the ship* is 117,199*l.*‖

But the most complete designs for a ship must take in, not only her standard water line when fully burdened at the "load-water" depth, but also her different water lines, as she lightens with the changes in her burden at different stages of her voyage. This, how-

* Provisions consist of bread (biscuit) in bags, Irish beef and pork in puncheons and barrels, flour, suet in barrels, raisins, sugar, cocoa, tobacco, butter, cheese, tea, soap, lime-juice, pease, oatmeal, vinegar, spirits, wine.

† Average weight of man and effects, 2 to 2½ cwt.

‡ In *river* water she sinks 5⅞ inches deeper than in *salt* water; equal to 143 tons 8 cwt., or 24 tons per inch, at the load or sea line.

§ These are war prices; 20 per cent. is taken off for peace prices.

‖ The cost of the hull of the Queen, a new class first-rate, of 110 guns, complete for sea, was 83,000*l.*

ever, is more to be considered in merchant ships, some, of which, as colliers, draw two, four, or six feet less at one time than another; and the bottom should be moulded accordingly.

One other general remark may be added. The parts of a ship's frame being less supported towards each end, have a tendency to drop as much as five or six inches, from their own weight, or when distressed by the pull of her moorings, and produce a shape called 'hogging' in the direction of her length. A similar kind of hogging takes place across her breadth, occasioned by the weight of her guns. The pressure of water along the bottom helps to compress and shorten the keel; and its vertical pressure upwards, acting on all the stanchions, has been known to force out the beams of the ship in that direction. It is the duty, therefore, of the naval architect to counteract these various strains, in addition to the ordinary working of the ship, by strengthening the body below water, which serves as the foundation of the whole structure; and to build up the parts above as firmly and rigidly as possible.*

"Great breadth of beam," says Captain Symonds, "and extraordinary sharpness, are the characteristic features of my system; with a careful attention to the stowage, the stand of the masts, and the cut and setting of the sails." † The principles upon which he

* A. CREUZE'S *Treatise on Naval Architecture.* Captain Brenton, speaking of the injury done by overloading the top timbers, which act as so many levers in bad weather, says:—"I remember very well, when I was a midshipman in a 64-gun ship, coming home from India, *cracking nuts by the working of the ship.* We put them in under the knees, as she rolled one way, and snatched them out, as she rolled back again. This was a good joke for a boy, but reflection has since convinced me that it was no laughing matter."—*Naval History*, vol. i. p. 40. By experiments made in 1823, on the Genoa, the force of the waves was found to be such, that the *lateral* curvature of the ship was $1\frac{1}{2}$ inches on each tack, thus altering her form, in the length, 3 inches from one tack to another.

† See p. 47.

rested his system were first developed in a tract under the title of *Observations upon Naval Architecture, &c., by a Naval Officer*, printed, 1824, long before he dreamt of becoming Surveyor.* As he adhered with characteristic steadiness to the views here laid down, it will be proper to give the substance of this tract; though it may involve the repetition of one or two points already adverted to.

He begins by remarking that an "experience of thirty years in the Naval Service, in which few have surpassed the writer in enthusiasm and avidity to gain a theoretical and practical knowledge of his profession," has encouraged him to advance a few observations on a subject of such vital interest to Great Britain. It concerns the safety of her wooden walls, and deserves fair and unprejudiced consideration. There was an opinion abroad, that British ships were inferior to French, Spanish, and American ships, and hardly better than those of second-rate naval powers; and this, too, in a country where experience should have taught her to excel as much in the arts of naval construction as in all other arts, and to produce "vessels as superior in form, symmetry, and capacity, as ours are beyond all others in point of materials and workmanship." We should then meet the enemy on a proper footing, where the courage and tactics of British seamen would find a certain field for their display. A small, good sailing fleet, able to choose its position, would, from the celerity of its movements, be a match for superior numbers. "Single cruisers would soon clear the seas of fast sailing privateers, and we should no longer hear of the dismay and disappointment, which are so often, and in some instances so fatally, the results of bad sailing," especially in merchant ships. This calamity is attributed to two circumstances: 1st, an imperfect manner of ascertaining

* See pp. 64, 65.

the tonnage; and, 2nd, the duty on tonnage. In a foreign ship, the tonnage, *i.e.*, the burden, is her actual capacity; while the capacity of a British ship exceeds by one-third, one-half, and frequently by much more, the registered tonnage.* Not only is the duty, in the shape of rates, dues, port-charges, at per ton, evaded, but a comparison with the forms and dimensions of our vessels with those of other nations shows that it leads to most serious consequences. To make vessels of large burden but small register, we build vessels long, narrow, and deep in the hold; so that, when heavily laden, they cannot beat off a lee shore, or stand without ballast; while the wear and tear on account of a taut rig, is greatly increased. This style of building merchant ships affects our men-of-war. The builders, through custom and prejudice, become wedded to forms which they find to answer the purpose of the shipowner, and which they have no means of testing by observation at sea. Excellent workmen, thus trained, are introduced into the royal yards as master shipwrights, to be promoted in due time, it may be, to the place of Surveyor of the Navy. What is the consequence? The beautiful models of foreign invention are in general beyond the comprehension of persons thus brought up, who content themselves with following the old beaten path; and in this way the "most precious works of first-rate masters are doomed" to neglect or destruction, that they may not serve as foils to awkward British bottoms. They have a very different system in France. There, instead of servilely copying models, even good

* It is mentioned, as a curious fact (in HALL's *Observations on the Navigation Laws*), that a ship which had been sent into dock, in the port of London, to be raised upon, in order to increase her stowage, measured *less* (according to the return), on re-survey, when she came out, than under her former register, though she was really 100 tons *larger*. N.B.—The old rule of tonnage, before noticed (and repealed in 1836), left a ship's depth out of consideration altogether.

ones, the constructor, proceeding upon first principles, and after settling the general form of his model, endeavours to combine the most desirable properties as to stowage and other qualifications, draft of water at the best sailing trim, weight of port sills, the situation of the masts in accordance with the form and nature of the vessel; in fact, the proportions of every part are duly calculated and adjusted beforehand. Each vessel is an invention; so much so, that it was asserted at the beginning of the French Revolution, "that scarcely any two French men-of-war of any celebrity were similar to each other."

English attempts at copying these models failed, because some improvement, as it was termed, on our side, "at once destroyed the principle of imitation." Vessels of different capacities, merely because their dimensions of length and breadth, or the number of guns, assimilated, were, without any regard to formation, "jumbled together in one heterogeneous classification," and "doomed to the same masts and yards, the same sails, stores, ballast, tanks, casks, provisions, and number of men." The forty line-of-battle ships, known in the service by the name of the "Forty Thieves," were sad instances of deformity. "If one or two, now and then, behaved at some fortunate moment as well as the finest and most perfect model, this was a poor recompense for sailing ill every other day in the year."

He then adverts to an instance of what was intended to be an improvement on an 18-gun brig, which had come under his observation; and to other well-known ships; the substance of which is as follows: —

"The Martin sloop of war having injured her fore foot, by striking upon a rock in the Archipelago, was hove down at Malta, and to the great surprise of professional persons, required 18 tons of iron ballast in her after end to effect this object; which quite reverses the principle, in construction, of the fish form, or full entrance and fine run. The officers

belonging to her stated, that it was intended she should sail 18 inches deeper in the water bodily, than it was possible to effect; and that her best sailing trim was 18 inches by the head, instead of 18 inches by the stern, as intended by the projector. Her line of paint is, consequently, in discordance with her superstructure. She is so narrow that her guns can be used with difficulty when no manœuvre is necessary: her two after-guns interfere with the wheel; her bulwarks are so preposterously high, that the crew appear encaged; the helmsman can see nothing; and if she ship a sea, the port sills are so far from the deck water-ways, that more water would be retained upon deck than the bearings of the ship would carry. She admeasures about 400 tons; and is masted and rigged equal to the class intended to imitate the Bonne Citoyenne, viz. the Hind, Spey, Larne, &c. of 460 tons burthen; without any pretension, power, or qualifications, to bear them.

"This vessel and the Rose must, from evident want of beam, be considered a third inferior, as to the physical strength, and totally inferior, as a good sailer and handy working vessel, to an 18-gun brig; a class which has never been surpassed in any service. They have failed in action with an overmatch, it must be admitted; but this may be in a measure attributable to the fore and aft mainsail, which some officers do not understand the management of, owing to their not having served in brigs or cutters. It may be obviated, by rigging them as barques, with a long mizen mast, having a very taut spiral sail, similar to the mizen of a ketch or dogger without a topmast; by which, and by their main trysail being much enlarged, their sailing would be improved. If they are converted into ships, a mizen topsail would serve only to embarrass so short a vessel, and would be too near the mainmast to brace up sharp on a wind.

"Yet, every body must admit that, fine as this class of brig or vessel is, they are not equal in tonnage, metal, armament in general, or number of crew, to American corvettes. It is also palpably evident, that a high poop-cabin, which takes much canvas from the principal sail, by raising the boom beyond the reach of those who work it, and quarter-davits for boats, which do not allow the sail to be properly trimmed, when two or more points off the wind, are very awkward modern additions; both being hurtful to the sailing of these fine brigs: the latter indeed (which is also given to the 10-gun brigs), in time of action, could only occasion splinters and embarrassment. The writer served three years as First Lieutenant in one of the class (the Scorpion)*, on most active service; during which period, she

* See pp. 28—33.

was never beaten in sailing; and, owing to her good properties, was chosen for services where frigates could not be trusted. He recommends the booms to be stowed on deck in two divisions; a fine boat, equal to carry out an anchor and cable, a little raised above the comings, between the booms; her thwarts moveable, in order to receive within her a 24-feet cutter; when stowed, their gunwales to be flush with each other; the captain's gig on the cutter's thwarts; and a light boat astern. The booms, as at present, stowed upon gallows, present themselves just where space is wanted in bowsing in the lee guns. The Scorpion experienced the effect of the gallows giving way when on a lee shore, and was in great danger from the accident.

"It is devoutly to be hoped, that the College, at present in its infancy, will, in future, promote the neglected science of naval architecture, and that the encouragement of premiums to students and others producing the best and most approved models, will be offered by the government. Experiments in naval construction, on a large scale, would be found too expensive and ruinous, until the science, in all its variety of branches, is better understood. In the mean time, the finest models might be selected for imitation by persons of experience, judgment, and of mechanical ability and practice.

"The breaking up of the Commerce de Marseilles, of 120 guns, excited most justly the regret and astonishment of the navy. Her admirable qualities, as a fast sailing and weatherly ship, her handiness in working, the superior manner in which she carried her lower-deck ports, and her handsome appearance, will not be forgotten by those who have seen her at sea; and they will never cease to deplore, what appeared to them to be, the wanton destruction, not only of the best and handsomest man-of-war of her day, but also of the best built and strongest constructed ship, both as to the materials and workmanship, that the navy could then boast of.

"While the Tonnant, Malta, and Canopus exist, we cannot want forms for large two-decked ships. The Impétueux has with justice been held up for imitation. The late French Courageux has produced some good English ships, The old Arrogant, Bellona, Bellerophon, Monarch, Tremendous, and all that class of small 74's, if their drafts were carefully and justly enlarged, would continue a treasure to the Navy, in an increased degree of force and other excellent properties. We have also beautiful models for frigates, French, Spanish, and even English; for all will admit that the Melampus's qualities for going to windward deserve to be held in remembrance. The Endymion and her relatives have not proved just imitations of the Pomone; nor is the Seringapatam, of the Presidente; but

the French Hebe (afterwards the Blonde) and Spanish Santa Margaritta, had the character of good sailers. The writer was near five years First Lieutenant of the Pique (late French Pallas); she was distinguished for her beauty, was inimitable as a fast sailer on every point, and was an excellent sea boat. Her model, increased to extent, would have answered every desirable purpose. The Bonne Citoyenne and Heureux *, with an increased breadth instead of diminution, as has been practised, would give models for matchless corvettes.

"To conclude, a few Queries will be offered, which may serve to mark the writer's design in presenting these few pages to the public. If they prove useful, and tend to show the folly and ill effects to shipping and the public interest, of calculating tonnage, or the burthen of shipping, by the present mode; or should they contribute to produce any kind of benefit to naval construction, his object will be fully accomplished. He disclaims personal feeling against any one, and would not have ventured to promulgate his opinions so freely, if he had not proved incontestably in four instances on a small scale, in which he was inventor, draughtsman, and supervisor, that *increase of breadth* in a vessel's construction is no bar or prevention to progression, where it is effected with judgment, and where the other constituent parts of the vessel are in accordance. On the contrary, he is fully satisfied that the grand desideratum in all ships, viz. *stability* or *uprightness under canvas, combined with fast sailing*, is to be obtained upon the principle he advances. These qualities every seaman will consider preferable, in offensive warfare, to crankness, unhandiness, and ill sailing, even when possessing one-fourth more force in battery.† Upon the system he advances, he will stake his credit as a practical seaman; and he is at all times ready to afford proof of the integrity of that system, and to stand the test of any examination or controversy."

The Queries referred to above, were reprinted in the *United Service Journal* of 1832, where they may be found, accompanied by a diagram. It should be remembered, in reading them, that his sole object was to give a free explanation of his views, founded on the results of a long course of practical experience, for the

* L'Heureux, 16, was taken by Pellew, in 1794.

† "Nothing," he said, afterwards, "can recompense a *loss of speed;* for the fastest vessel will always have the greatest advantage in *taking a position*, or in *chasing*, or in *retreating*."

benefit of men of his own profession and amateurs. His technical terms, "bearing," &c., are chosen accordingly, and are sufficiently intelligible in this point of view. Some parts of his style are a little obscure, and probably one or two of his deductions are not justified by the rules of strict theory (though they are within the limits of a safe empiricism); but with these drawbacks, his Tract lays down the general principles of ship-building on an improved and solid basis. By "taking from the flat floor of a ship of the old construction, and adding the fulness to the breadth above the water line," * giving her that peculiar feature which he terms "bearing" he arrives at his fine "wedge-shaped bottom." He affirms that a vessel of this formation, with increased beam in her frame, six inches to three feet above the line of floatation (when laden †) would possess these advantages:—She would carry more dead weight; would be staunch under canvas when pressed by the wind; would roll less; would, by her sharp broad figure, be more capable of velocity; and would offer more resistance to lee-way. She would admit of greater depth of hold; would shift her cargo less; and would require less ballast to replace the cargo. She could be fitted with lower topsides and bulwarks; would afford an "improved system of tumbling home aloft, to concentrate the weight above water;" would allow of a more roomy deck, for the ordinary working of the ship, or in case of action,—as well as more spacious hatchways, and for the better stowage of boats, spars, &c.; while the masts

* In other words, by straightening the curve from the keel upwards. By "flat floor" is meant that part of a very round hull nearest the keel. He used to say to his friends, "In my ships you have the properties of the duck and the fish;—the fish, to go through the water, and the duck, to sit upon it."

† This is conformable to theory. Chapman says (p. 23, of Inman's translation):—"We conclude from this, that as it is proper to give a ship all the stability which is possible, it is right to enlarge it near the load water line, so as to raise the centre of gravity of displacement; that is, to make her full between wind and water."

would be steadier, since a greater spread could be given to the standing rigging. And such an improved vessel, he submits, would not be more expensive than others. Even merchant ships, if properly masted and rigged, not being "embarrassed in their superstructure with ordnance," might be made to sail faster than men-of-war, and perform their voyages in war-time, independent of convoy. "Why, then, should the present mode of admeasurement *, so ruinous to the art of construction, and favourable only to preposterous, crank and unwieldy ships, be any longer continued?" In the case of vessels of war, the number of guns and weight of metal are more to be considered than the tonnage or dimensions. Of this fact, he remarks, the government of the United States wisely take advantage. We found their 74's and 80's, so called, more than equal in dimensions to our first-rates. This exposed us to the disadvantage of fighting the same number of guns upon a battery infinitely less roomy and less stable — one of the worst results of this self-destructive system.

* As above said, this irrational mode of gauging a ship's tonnage was altered in 1836.

CHAP. V.

1832—1837.

NARRATIVE RESUMED. — THE COLUMBINE AND VERNON. — DISSOLUTION OF THE NAVY BOARD. — CAPTAIN SYMONDS APPOINTED SURVEYOR OF THE NAVY. — REMARKS IN THE DEBATE ON NAVY ESTIMATES.— BUILDING OF THE VANGUARD, PIQUE, ETC. — CLASSIFICATION OF SPARS AND SAILS.—CAPTAIN SYMONDS KNIGHTED. — THE CARYSFORT, DIDO, ETC. — PIQUE AND INCONSTANT. — ACCIDENT TO SIR WILLIAM. — RECEIVES THE THANKS OF THE BOARD.

LEAVING the general considerations touched upon, by way of introduction, in the last chapter, we now proceed to give the reader an account — as complete as the scanty materials will allow — of the Surveyor's life and services, from the launching of the Columbine.

Without casting about to discover some mysterious predisposition for that branch of practical science in which Captain Symonds so eminently distinguished himself, it is enough to show, as his autobiography shows, that from his early youth he was employed in every description of ship; and upon the solid experience thus gained he built up his improvements. He possessed this inestimable superiority over the most accomplished theorist, that he was able to bring to the subject the ripe knowledge of a thorough seaman. During a period of twenty years' active employment, he had been accustomed to pay constant attention to the "construction, advantages, and defects of the vessels in which he served, or which came under his notice." These observations led him to infer that the "existing system of shipbuilding was radically faulty, and that the remedy was to be found in the adoption of those principles which he

afterwards introduced with so much credit to himself and benefit to his country." *

Whatever difference of opinion may exist as to details, *great breadth of beam*, combined with *extraordinary sharpness*, are at the root of all other qualities in a good ship. Under these two grand features "he endeavoured (as he says) to unite stability, capacity, velocity, and strength, without sacrificing beauty."

In an early stage of his professional career, Captain Symonds had been much struck with the stability of the *Gibraltar*†, compared with other ships in the Navy. She was an 80-gun two-decker, taken in Rodney's action, off Cape St. Vincent, in 1780 (during the siege of Gibraltar), and, under the name of El Fenix or Phœnix, was reckoned the most perfect model Spain had produced. At first she was a dull sailer, but was improved into a capital ship, by good trim. Captain Symonds went on board her, at the very first opportunity, expressly to take her dimensions, which he afterwards copied in his Vernon. He felt convinced that a ship possessing her stability, added to a fine sharp

* *Facts* versus *Fiction, or Sir W. Symonds's Principles of Naval Architecture vindicated.* By ONE WHO HAS SERVED. 1845. The writer states, that though personally unknown to Sir William, this defence was written with his sanction and assistance, given through a mutual friend.

† Length of gun-deck, 178 ft. 11¼ in.; of keel, 144 ft. 6 in.; beam, 53 ft. 3¾ in.; depth, 22 ft. 4 in.; tonnage, 2185. Her depth being so unusual, she was sent from Portsmouth to Plymouth to be repaired; but on a later occasion (July 1805), she was docked at Portsmouth. She was constructed of beautiful Spanish mahogany and satin-wood; her builder, it is said, was an Irishman (see p. 97). In 1796, when in command of Captain J. Pakenham, a gale drove her on the Pearl Rock, near Cabrita Point, on the Barbary coast. Here she lay thumping her bottom, on a dark night, with a tremendous sea breaking over her, till a wave lifted her off. "Being fortunately one of the strongest built ships in the service, she made no water." When ordered home for repairs, it was discovered, on docking her, that a large piece of rock had pierced her bottom, and, by remaining there, had saved the lives of all on board.—BRENTON'S *Naval History,* vol. i. p. 333. She was broken up, 1836.

bottom, would beat every ship in the service, in those points which are considered most valuable in a man-of-war. Some years elapsed before an opportunity occurred of proving the correctness of his ideas on these points; but, during his residence at Malta, as Intendant, he was enabled, through a bequest in the will of his old friend and patron, Admiral the Hon. W. Cornwallis (who died 1820), to put them upon trial, by the construction of the Nancy Dawson, Fortune's Favourite, &c., as already men-

THE FORTUNE'S FAVOURITE.

tioned.* Such was the success of Captain Symonds's first attempt at ship-building, that the Nancy Dawson was often to be seen working out of Valetta Harbour in the teeth of the strongest winds, beating everything she came

* See p. 52.

near. Her remarkable sailing qualities attracted the particular notice of Lord Vernon, then the Hon. G. Vernon, and a great yachtsman, who became so fully persuaded of the soundness of the principles on which she was constructed, that he exerted himself most strenuously to induce the Admiralty to countenance Captain Symonds's plans. Believing that their adoption here would be a signal benefit to his country, he, with the utmost disinterestedness, and in order that the public should not suffer through risk of failure, went so far as to offer to take a vessel built on the Captain's lines, off the hands of the Board, provided she were found unsuccessful after a fair trial. Under these restrictions, Lord Vernon* carried his point with the Admiralty; and Captain Symonds was allowed, after much opposition from the Navy Board, to lay down the Columbine on his own lines, at Portsmouth. The success of this beautiful vessel, the first of a long series of architectural triumphs, was strong and decided from the first, as related at p. 74.

For a few years before this, the Navy Board had so far relaxed their exclusive monopoly of turning out bad or indifferent ships at an extravagant cost to the country, that several candidates had been allowed to build small experimental vessels, to enter the lists with the Acorn, Satellite, and other productions of their surveyors. Among these were members of the senior class of Shipwrights' Apprentices, belonging to the School of Naval Architecture, who built the Icarus, of 10 guns; Rose, 14; Volage, surveying vessel; and Sapphire, 28; in the years 1814, 1821, 1824, and 1829;—to which add one of a later date, the Actæon, 28, in 1831. Captain J. Hayes†, a first-rate seaman, in 1823, 1824, and 1830,

* Lord Vernon afterwards wrote a pamphlet in defence of the Columbine, stating that Captain Symonds had "brought to light some new and distinct features of improvement in Naval Architecture."

† Captain Hayes died a Rear-Admiral in 1838.

built the Arrow cutter; Champion, 14 ; and Wolf, 18 ;—with the Seaflower cutter, in 1830, and the Inconstant, 36, in 1836. Dr. Inman*, Professor of Mathematics at the Naval College, and a first-rate theorist, who had never been to sea in his life, built the Orestes, 14, in 1824; Comus, 14; Larne, 14; Fly, 14; and Electra, 14; in 1828, 1829, 1831, and 1837 respectively. Mr. Sainty built the Pearl, 18, in 1828. There was also another vessel by Captain Hayes, the Challenger, a 28-gun frigate, built in 1827, and wrecked 1835. She and the Tyne—a small frigate of Seppings's, built 1826—are stigmatised by Sir Charles Napier (in his *Letters on the Navy*), as being "so crank, that had they engaged, with a press of sail, the shot of the weather ship would have gone under the keel of the lee one, and the shot of the lee ship over the trucks of the weather one." Sir R. Seppings's Acorn afterwards foundered on the North American station; and was replaced by a new Acorn, built by Sir W. Symonds, 1838. Both Acorn and Satellite were 450 tons each; the Columbine was 490 tons.

The Columbine was 105 ft. ½ in. long, by 33 ft. 6¼ in. in beam; carried 18 guns on a flush deck; and was a great improvement on the old 18-gun sloops.† She is spoken of (in the *United Service Journal* of 1831) as in "point of form, one of the prettiest and fastest vessels of her size that ever swam." Sir C. Napier, while recommending the building of experimental brigs as most praiseworthy, if done with judgment, says that "Colum-

* Senior Wrangler of 1800. He translated CHAPMAN'S *Treatise on Naval Architecture*, adding valuable notes. It is difficult to apportion the exact share which Dr. Inman, and the members of the School of Naval Architecture under his guidance, had in several ships. They are given as they appear in Parl. Return, No. 294, 1850.

† There is a model of her frame in the Museum at Somerset House. An older Columbine was lost under the island of Sapienza, near Navarin.

bine is indeed a sweet vessel, the regular American clipper *, and does infinite credit to her constructor" (1829). On her return with the experimental squadron, from her cruise in 1827, she was inspected by the Lord High Admiral, at Spithead. His Royal Highness expressed himself particularly pleased with her appearance as he sailed round her; and he afterwards decided that three frigates should be built, — one by Captain Symonds, one by Captain Hayes, and one by Dr. Inman; but the Navy Board proved strong enough to get the order rescinded.†

In 1834, Commander Henderson reported of the Columbine: —

"On our passage to England, we came up with, to the south-

---

* There is a strong family likeness in the three fastest classes of vessels,— the English cutter, French lugger, and American clipper.

† "Of all the ships that e'er were built
To sail the ocean's brine, sir,
Throughout the fleet not one can beat
Our saucy Columbine, sir.
For she's so strong, so tight, so stiff,
And does the rest outshine, sir.
Huzza! for him that laid the plan
Of the saucy Columbine, sir.

"The Trinculo may do her best,
And the Alert, so fleet, sir,
Alert she is, but then she's not
Alert enough to beat, sir.
Our bonny bark at any time
Shall run her out of sight, sir;
And though we sail just like a witch,
We've lots of room to fight, sir.

"We do not fear the Challenger,
The Sapphire, or the Tyne, sir.
The Wolf may growl, but, fair or foul,
No beating Columbine, sir.
The Acorn and the Satellite,
Their efforts, too, may try, sir,
But if they beat the Columbine,
Why, hang it, they must fly, sir!"

SLIGHT'S *Chronicles of Portsmouth.*

ward of Ushant, and passed, as if at anchor, the Scorpion and Eclipse packets, the first having sailed from Malta eight days before us; and although two days were lost at Gibraltar and Tangier, we arrived at Plymouth two days before them."

At a later date he remarked that she was most correct in her steerage,—which implied something more than merely manœuvring her, — "insomuch that her reckoning has scarcely been a mile out since I have commanded her." *

In December, 1836, she beat the Water Witch in a trial on the coast of Africa; and caught some of the fastest slavers in that quarter. She was employed in China during 1841. In February, 1847, when commanded by Captain C. C. Gray, at Sarawak, she weathered a terrible gale on an ugly lee shore; proving herself a "beautiful sea-boat. They struck once, and never had a more trying task; but to the astonishment of all on board, she stemmed the mountainous sea;" and in an hour they were safe, thankful to the Almighty for His merciful interposition.

After the Columbine's success was established, Lord Vernon pulled his yacht, the Transit, to pieces, and converted her into a reduced Columbine, calling her the Harlequin. The Duke of Portland then came forward for lines on which to build a yacht for his own use; and also engaged Captain Symonds to lay down several small vessels at Troon, for the purpose of trying practical experiments in shipbuilding. The *Pantaloon* was the result; a vessel 91 ft. 10 in. long, by 29 ft. 4 in. beam. She was purchased by Government, as soon as her performances were reported upon.† Her character was assailed as the Columbine's had been. It was said that her hull was seventy tons lighter than those of her com-

* See "Correspondence" for further details.

† See p. 91. Pett's frigate, the Constant Warwick, was 85 feet by 26½ feet.

petitors; that she left a month's provisions behind, carried a reduced quantity of water, had a better rig, &c.

Lieutenant S. C. Dacres*, her commander, after two years' experience of her character, states: —

"We were chiefly employed in conveying the mail to and from Lisbon, and had good opportunities of trying her in all weathers, particularly in the gales of 1833, when her amazing weatherly qualities, under low sail, and her dryness, lying-to, were most astonishing. She scuds admirably well, having come home from Lisbon, in June 1834, in as heavy a gale as the oldest seaman on board had ever witnessed. I believe the passage to be the shortest yet known. Whilst on that service, I had trials with many packets, none of which had any chance with the Pantaloon. We likewise beat the Briton, Nimrod, and Orestes †, on the Lisbon station.

"I have only to add, that her accommodations on the lower deck for her men are capital, and that our sick list was uncommonly small, taking into consideration the constant exposure to wet weather."

Lieutenant Dacres says that she is "remarkably stiff," carries her lee ports "well out of the water," rolls "briskly but easy," does not "strain in pitching," steers "uncommonly well," stays and wears "remarkably quick," is "weatherly, beyond comparison," compared with other ships; and that as to her sailing she was beaten only by the Vernon and Snake — both of which were built by Captain Symonds. It is needless to add that these characteristic marks of a superior sea-boat, from time immemorial, apply to nearly all the Surveyor's ships.‡

* Now Captain Superintendent at Haslar Hospital.

† Briton, 46, built 1812, at Chatham, after the old Leda. Nimrod, 18 sloop, built at Deptford, 1828. Orestes, 12, by Dr. Inman, at Portsmouth, 1824.

‡ The Pantaloon found a rival in the Water Witch, built for Lord Belfast, by White of Cowes. She was a great pet with all for her beauty, but her dimensions (and these were everything) were all taken from the Pantaloon, which always retained an advantage over

In December, 1831, Captain Symonds was allowed to begin laying down the lines of the Vernon at Woolwich Dockyard, where he held a semi-official appointment, as an earnest of a more elevated post to be conferred upon him, so soon as the contemplated arrangements for reforming the civil departments of the Navy could be carried into effect.

From His Grace the Duke of Portland.

"Welbeck, Feb, 21, 1832.

"DEAR SIR,

"I was very glad to receive the intimation in your letter of the 17th, that your appointment has been officially announced to you. I hope it may be made out, *quamdiù se benè gesserit.**

"I have not the least doubt that, if the present Admiralty lasts long enough to give you time to show what you can do in building a two-decker, and you do not allow yourself to be persuaded or talked out of your own excellent principles, you will establish yourself on such solid ground, as will make it impossible for any future naval administration to remove you.

"Till that is accomplished, I shall not consider you safe. There is nothing I so much desire to live to see as the regeneration of the British navy under your auspices.

"I hope I have had some little share in inducing Lord Wilton to buy the Owen Glendower yacht. If I have had any in contributing to your new appointment, I am amply repaid by the satisfaction it gives me.

---

the Water Witch going to windward. She was purchased into the service, as a 12-gun brig, in 1834.

	Pantaloon.	Water Witch.
Length . . .	90 ft. 0 in.	90 ft. 6 in.
Beam	29 4¼	29 4
Depth of hold .	12 8	12 8
Burden . . .	323 tons.	324 tons.

She also carried more sail; spreading 9795 square feet to the Pantaloon's 9161 square feet.

* "During good behaviour," *i.e.*, for life; instead of "during their Lordships' pleasure." Earl Grey's government resigned on 7th May, after the division against the Reform Bill in the House of Lords; but returned to office again, 18th May, and finally carried this great measure on 7th June, when it received the Royal assent.

"That you may long live to enjoy it, and to accomplish a new era in naval architecture, is the prayer of,

"Ever yours, sincerely,

"SCOTT PORTLAND.

"I hope in about three weeks' time to see *Vernon semper viret.*"

On May-day 1832, the *Vernon* was launched, the "most magnificent frigate ever built by any nation," as Sir C. Napier styles her.* She was appropriately named (by Lady Graham) after Captain Symonds's steady friend Lord Vernon, whose family motto (a pun for *Vernon semper viret*) on her stern was a prophecy of the fame she acquired. The figure head was an indifferent likeness of Admiral Vernon, the Porto Bello hero of the last century.† Her greatest length was 183 ft., beam 52 ft. 8½ in., depth of hold 17 ft. 1 in., tonnage 2082.‡ Displacement, *i. e.* her weight, when launched (according to Edye's work on Displacements), 1386 tons; at the constructed load-water line, 2564·1 tons. It required 14¾ tons to bring her down an inch. Launching draught, 13 ft. 6 in. forward, 17 ft. 6 in. aft; loaded draught 20 ft. 6 in. forward, 21 ft. 6 in. aft. Distance between the ports (centre to centre), 7 ft. 6 in.

This fine ship took the Navy by surprise. She was a 50-gun frigate of unexampled capacity, as large as any old line of battle-ship of 80 guns; indeed her di-

* *United Service Journal,* 1833. He adds:—"This was Captain Symonds's *first* frigate, and yet she beat the Navy Board's Castor, with all their talent and experience."

† It was then very rare, and is still uncommon, for a ship of the Royal Navy to carry her name. There was a hole near it, under the cabin windows, for riding by a cable astern.—Mount Vernon, the seat of Washington, in Virginia, was so named by a brother of the General who had served with the Admiral at Porto Bello. A steam Vernon was afterwards built by Wigram and Green at Blackwall.

‡ The Barham, a *razée* 74, was the same length, but only 48 feet 4½ inches in beam, and 1761 tonnage. When she conveyed Sir W. Scott to the Mediterranean, 1831, three men shipped at Portsmouth, "all because Scott was going in her;" which the great novelist took as a handsome compliment. She was broken up, 1840.

mensions were expressly borrowed from the Gibraltar, the first object of Captain Symonds's admiration. He meant the Vernon to be the "maximum of his scale, as the Pantaloon was the minimum;" but this standard was not always adhered to. She was built of English oak, mixed with a little Italian, but was unfortunately covered in in too great a hurry. Mr. O. Lang, the master shipwright at Woolwich, was allowed to introduce various practical improvements in the details of her hull. She had, for instance, his safety keel, on a plan which had been tried with success in the Trent, in Captain Buchan's voyage to Spitzbergen in 1818*; so that if by accident the outer keels and gripe were dislodged by the rocks, and the planking rubbed, she would still be sound, and water-tight. Another improvement was placing the magazine amidships; by which arrangement the guns could be supplied faster, and room was saved for 23 more tons of water.† She stored 253 tons of water in tanks, 35 tons in casks, with six months' provisions for 500 men under hatches. The futtocks in her frame timbers were joined without chocks (on Seppings's plan); her masts and yards were those of a middle class 74; the topmasts were of New Zealand timber, and remained "twelve or fourteen years in the ship."‡ Her unusual beam gave her a beautifully broad and roomy deck.

The height of the lower deck ports from the water is always a mark of a good ship of war. Some of the old line of battle ships stood out less than 4 feet; now 6, 7, 8 feet is the rule, with everything on board.§ The

* She was commanded by Sir J. Franklin, then a lieutenant.

† The Barham was fitted in the same manner.

‡ Mr. Edye's *Evidence* before the *Committee on Navy Estimates*, 1847-8.

§ The Mary Rose (*i.e.* "Mary the Rose," after the beautiful Mary Tudor), which sunk at Spithead, 1544, in Henry VIII.'s reign, with all her crew, by a "little sway of the ship in casting about," had

height of the Vernon's midship port when she was fully stowed was 9 and 10 feet. She was armed with long 32-lb. guns on her main deck; making the weight of her broadside 1600 lbs., the whole of which, from her height, she could use, when a cranky vessel would be disabled. She in fact carried twice the weight of shot, and was twice the tonnage, of 50-gun frigates built about 1745. It is impossible to build a vessel which shall not heel over when pressed by the wind; but a good constructor shows his art by reducing this within safe and convenient bounds. The Vernon's stability was such that she inclined only 3° to 5°, and rarely threw a glass off the mess-room table.

Before Captain Symonds's time, the problem of building a ship had to be worked out in a very limited form, to the manifest injury of the Naval service, and, it must in justice be added, to the great disadvantage of his predecessors in office, who were bound down to build to such a length and breadth*, or not to exceed a given tonnage, for every class. Captain Symonds refused to work with his hands

her ports within *sixteen inches* of the water. She still lies between the Spit sand and the mouth of Portsmouth harbour. Some of her brass guns were got up by Deane, in 1835.

* This primitive mode is still practised by the natives of the Mosquito shore. "When the Prinzapulko Indians desire to procure a vessel of the largest dimensions, the contract is made by giving the Indian with whom they agree, a piece of twine, on which is marked by knots, the length, breadth, and depth of the vessel wanted. The Indian is, at the same time, furnished, in advance, with two or three adzes, axes, and other articles, to the value of about one-fourth of the price agreed on; and he delivers a duplicate of these dimensions, together with a piece of silk grass, with knots upon it, corresponding to the number of days in which he has agreed to fulfil the contract. One of these knots is cut off or unloosed daily, and when reduced to the last, they can with certainty reckon on the immediate appearance of the contractor or his friends; and in case of death or accident, the latter invariably consider themselves bound to fulfil the agreement."—*Narrative of Voyages and Excursions on the East Coast of Central America* (for purposes of trade). By O. W. Roberts. 1827.

tied, "cabin'd, cribb'd, confined," or to accept a post fettered by such restrictions as had crippled their exertions. He was willing to take upon himself the responsibility which attaches to great or unusual changes; and being happily left to build according to his own plans, he was the means of revolutionising the whole system. The great size of the Vernon, and of his other ships, compared with old English vessels of the same class, is but one proof of how far he had emancipated himself from the absurd trammels imposed on former builders. The consequence is, that we have now in the Navy, frigates of 2500 tons and upwards, larger even than first-rates fifty years ago.*

Until he showed the way to a better style, naval shipbuilders stuck to their old cramped-up ships, that were no better than so many boxes of guns, in which the men had not room to turn, the distance between decks being only 5½ to 6 feet. He raised it to 7 feet; and the health and comfort of the crew were increased in proportion. It was this in particular which used to astonish the Vernon's French visitors, who would jump about, trying to touch the deck overhead, with exclamations of the greatest astonishment and pleasure.

The "stand of the masts" was one of the points to which Captain Symonds gave particular attention; and the Vernon exemplified his rule, which approximates very nearly to Chapman's for Swedish ships. The main and mizen are even further aft, in proportion to the length of the ship.†

Her total cost, equipped for sea, was 62,115*l.*; but she had no copper fastenings, or very few compared with later ships. She went down the river fully rigged, with her stores, provisions, and water for six months, and

* The Shannon frigate, by Sir B. Walker, is 2667 tons. The St. Vincent, 120 guns, built 1815, is only 2612 tons.

† CREUZE'S *Naval Architecture.*

some of her guns, on board. Thus loaded, she happened to touch a mooring chain, and was forthwith taken all standing into Sheerness Dockyard, for examination. So confident was Lang of his work that he dispensed with the usual shores along the sides, which are meant to prevent a ship's straining herself, and allowed the Vernon to rest simply on her keel. She did not show the least sign of weakness.*

At Portsmouth she tried her sailing qualities before the Board, with the Castor, Dryad, and others. Their angles of heeling (marking their respective stabilities), were Vernon 4°, Castor 10°, Dryad 25°. This last, an old 42, built 1795, by Sir J. Henslowe, had just returned from abroad; but the Castor (by Seppings) and Vernon were both new. On her first cruise, her Captain, Sir F. A. Collier, writes, —

"We have had another run on a wind, and beat Castor more than we did the day you were on board, and we carried a reef out more than any of the squadron. The following day we had a run before the wind, which was light, going six; we beat Castor in the day's run, they say, 1½ mile. However, they are now quite cowed, and say, 'Why, who expected otherwise!'"

A little while after he writes, "Yesterday the ship quite astonished me. Vernon wore like a jolly boat. I never was in so handy a ship."

In November, 1832, a combined English and French fleet under Sir P. Malcolm and Admiral Villeneuve sailed from Portsmouth, to compel the Dutch to evacuate Antwerp. Her Captain reports from off the coast of Holland: —

"Vernon is indeed all you could wish. The Frenchmen were, as most people are, surprised, and our sailing has asto-

* *Nautical Magazine* for 1832. In 1834, Mr. Lang reported that he could not perceive a trace of working in any part; "she was as firm as when built on the slip, and did not require a single bolt or nail as additional fastening."

nished them. We spared them her reefs, royals, and studding-sails, and then went from them. Vernon's handiness has quite surprised the pilots: we were rather jammed at weighing, but she was as handy as a cutter. They all say we are too long-legged for the Dutch coast in winter; we must only look out sharp. I think there will be some slashing work when the dark nights come on."

In 1833–4 she was employed, under Captain Sir A. Westphal, as flagship to Vice-Admiral Sir G. Cockburn, on the North American station; from which, after a little while, she was ordered home, and replaced by the President. A letter from the Captain who brought her home, August, 1834, states—"You will perhaps recollect that we sailed in the President * for Halifax, from Spithead, on 29th May; and after a stormy passage we arrived there 1st July. The Admiral was not there, but had left orders for me to join him at Bermuda, where I found him on the 15th July, with his flag on board the Vernon. On the 17th, we changed ships. I had not been on board the Vernon until then; and I never was more astonished in my life, to see the difference between the two ships. On the 23rd July, I sailed again for Spithead, where I expect to arrive to-morrow, which will be a very quick passage. The Vernon is a splendid ship, sails and works like a jolly boat. . . . . As a proof of her being an easy ship, the Master took an azimuth at the time she was going 11·6 knots, a circumstance never heard of before; and every way I have tried her, she is easy to a degree. The only way she has not been tried, is upon a wind, in a head sea; and even there, I have no fear she is the finest ship in the world."

The Vernon's enemies said, she was a failure, and was sent to the West Indies because she could not stand knocking about in the North Sea. After this,

* President, 50-gun frigate, built at Portsmouth, 1829, upon the lines of the American President, a ship taken by the Endymion and Pomone, 1814. The last was a Spanish frigate, captured 1806, by the Arethusa.

there was a report that she was ordered home from America in consequence of the unfavourable opinion of the Admiral and Captain; but a correspondent of a Plymouth paper stated, that having belonged to the Vernon when she took the Admiral out, and afterwards to the President, he had often heard the opinions of both these officers, as well as of others on the station, respecting the two ships; and he asserts that it was impossible they could make a report so contrary to their avowed sentiments. The truth was that she went out merely on trial, and was sent home at the Surveyor's request. There prevailed, however, a pretty general belief (which is frequently alluded to in the following pages), that Sir G. Cockburn had conceived a prejudice against her, and wanted to get her changed for a ship of the line, as more suitable to his position. Much to his disgust the Admiralty sent out the President, a frigate of 500 or 600 tons less burden*; the after accommodations of which were of course very limited in comparison with those of the Vernon. Other notices of her performances in 1835, and at subsequent periods, will be found further on, and in the Correspondence at the close.

From Capt. Sir F. A. Collier.†

"DEAR SYMONDS, "1833.

"I had heard nearly all you mention about Vernon, and at a large country dinner, was as usual attacked about her, when Sir George C.'s opinion was quoted. Lord Vernon showed me a letter he had from Plymouth, where Cockburn's opinions were mentioned. Surely Government, in common justice to *you*, and likewise to *themselves*, ought to send out another ship.

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* Her actual tonnage is 1537, or 545 tons less. RAIKES, in his *Journal* (1832), reports that Sir G. Cockburn was so inveterate in his opposition to the Whigs, that he was appointed, at the King's express desire, to the American station, to get rid of him in the House of Commons.

† Rear-Admiral Sir F. A. Collier died in command of the China station, 1849.

Why not the Winchester? she has a poop, and they say he likes that ship. There can be no doubt but Sir George C.'s opinion has great weight with many of our own cloth, who are jealous of your well earned fame, old boy; and again I say, in common justice they ought to send out another ship. Although my last trip was an expensive one, yet to bring Vernon home, I would willingly fit out a ship to relieve her, and make them a low bow for it. I should like to see her tried with Barham, or the three *cut down*. Lord Vernon is so very shy, or he would, or ought to ask for Vernon being sent home. I have written to Sir T. H. to-day, and said all I dare.

"Believe FRANK COLLIER ever your true and sincere friend.

"Captain Symonds, &c. &c. &c."

From the Same.

"Wickham, 1833.

"DEAR SYMONDS,

"On Saturday, at Southampton, I met Captain Inglefield, who told me, in his sarcastic way, he was sorry to hear such bad accounts of the Vernon; and asked if I had heard any thing lately about her? My reply was, that the Admiralty had intended relieving her, as they, with the rest of the world, *must* be aware that Sir Geo. C. was decidedly prejudiced against her; and it would be unjust to you, and, indeed, to the country, to allow her to remain longer subject to unjust and unfair remarks. I was told that I was quite mistaken; that he had seen an officer who had just *left her*, who told him that *her back* was broke, and all the iron *fastenings* had given way; and he *added*, 'It is just what *I* expected.' Now, do, old fellow, tell me if I may give these fellows the *lie* the next time I hear the subject *broached*. Report here says Keats is gone *D. D.* *; if so, Sir Thomas Hardy will quit the Admiralty, and with him all my hopes, particularly if Malcolm takes his place.

"Believe me ever,

"Yours sincerely,

"F. A. COLLIER."

From Admiral Sir Manley Dixon.

"Admiralty Office, Devonport, 8th Feb. 1833.

"MY DEAR SIR,

"The Vernon has passed a pretty severe trial, *most triumphantly*, on her return to Torbay, on the morning of the

* 'Gone D. D.' — dead.

23rd, being in sight of Ushant, in a very heavy gale and under reefed foresail, and close reefed maintop-sail, and in a very heavy sea, when she wore and stood up Channel and reached Torbay on the following day, without sustaining any damage worth mentioning. Sir George Westphal says, in a letter to me, 'The Vernon performed wonders in sailing, and is more weatherly under her canvas than any ship I have ever sailed in.' I saw part of a letter from the *Vice-Admiral*, who speaks most highly of her qualities; 'but a wet and uneasy devil when forced with canvas in a severe gale and corresponding sea, and pretty close to the wind for a time.' What ship of any *worth* could have been otherwise? She is generally called on board, '*a most splendid man of war*,' as Sir George Cockburn also observed. Under the canvas she first started with, she performed wonders in weathering and sailing (*pretty close to the wind*) 7 and 8 knots *an hour*. I don't hear that she has carried away any thing whatsoever, but is quite ready for another start. It has been blowing a gale ever since. Excuse this *hurried* but *true scrawl*. As Sir *Dicky* Strachan used to say, '*we were quite delighted!*'*

"Ever yours, very sincerely,

"MANLEY DIXON.

"To Captain Symonds, R. N."

Extract of another letter from Admiral Sir Manley Dixon.†

"Devonport, Admiralty Office, 1st November.

"Nothing has delighted myself and family more, than the success which has attended all your operations. The *jealous-pated calumniators* are no more to be dreaded; but are, by *themselves*, covered with shame and disgrace, and ready to sneak into any hole or corner out of view.

"Yours, &c.

"MANLEY DIXON."

Extract of a letter from Sir Thomas Ussher ‡ *to Sir Thomas Hardy.*

"Bermuda, October, 19th, 1833.

"The Vernon has astonished the Americans who have been

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* A characteristic phrase in Sir R. Strachan's official letter, in 1805, when he made out some strangers he was in chase of to be the French squadron.

† Admiral Sir M. Dixon died 1837.

‡ Rear-Admiral Sir T. Ussher (a descendant of the primate) died

to see her. She is certainly a beautiful ship — the gun-room officers say that they never had occasion (except once) to secure the glasses on the table! Still it is said, she is an 'uneasy ship' — a curious *contradiction!*"

The Navy Board, first instituted by Henry VIII., and permanently established under a commission from the Great Seal, by the Duke of York, in 1660, was designed to furnish the science and professional information which a miscellaneous and constantly shifting body like the Admiralty might stand in need of. The regulation of the Dockyards, the building and repairs of ships, the supply of provisions and stores, the payment of wages, the management of transports, &c., were placed under the control of this Board and other boards of a similar character. But at the period of the Reform Bill, the Navy Board had grown impracticable and prejudiced, and was generally regarded as the chief obstacle to all improvements in the service. A competent living authority, distinguished for plain speaking, styled it without ceremony, "a curse to the Navy." It was therefore swept away in 1832.* By a bill brought in by Sir James Graham, First Lord of the Admiralty, and passed, after some opposition, 1st June, the Navy and Victualling Boards, and the offices of Commissioner of Navy and Victualling and of Comptroller of the Navy, were dispensed with; and in lieu thereof, five principal officers were appointed as heads of departments, under the Board

1848. He carried Napoleon to Elba, in 1814, and wrote an account of the Emperor's abdication.

* "You may rest assured," said Lord St. Vincent to Lord Spencer, the First Lord, "that the civil branch of the Navy is rotten to the very core. . . . Upheld as it is by powerful borough influences, and the habits and prejudices of an old corrupt country, it will require much time, caution, and judgment to get the better of."—TUCKER'S *Life of St. Vincent.* At a later date, he writes to Admiral Markham, "I hope Lord Howick will sweep away the spiders of the Navy Board." Lord Howick was the Earl Grey who lived to accomplish this desire of the patriotic seaman.

of Admiralty, at Somerset House. These were, 1, Surveyor of the Navy; 2, Accountant General; 3, Storekeeper General; 4, Comptroller of Victualling; 5, Medical Director General,—to which two later departments have been added; 6, Comptroller of Steam Machinery; 7, Director of Engineering and Public Works (ashore). By the same Act the Dockyards were placed under Naval superintendents, removable from time to time, instead of the former permanent civil Commissioners. It is not easy to form a just notion of the multiplied details and complex arrangements which perpetually tax the labour and ingenuity of those who have the guidance of these departments, under the supreme regulating Board; and which are involved in the support and direction of a Navy, numbering, at this moment, more than 750 ships and their crews, actively employed in every quarter of the globe, or ready for service at a few days' notice. An army composed of movable bodies of men, bears the nearest resemblance to it; but here the men are the chief concern; whereas in the Navy the men are subordinate, as it were, to the wonderful machine in which they live and are carried about.

Agreeably to the new dispositions, Captain Symonds, on the 9th of June, was appointed *Surveyor of the Navy*, in succession to Sir Robert Seppings, who retired upon superannuation.* For this post he was indebted to his own acknowledged merits, and to the generous and persevering exertions of his friends in the service, and especially to the support of two public-spirited noblemen, the Duke of Portland and Lord

* Joseph Tucker, Esq., joint-surveyor with Sir R. Seppings since 1813, was superannuated, 1831. The patent of Admiral Hon. G. H. Dundas, Comptroller of the Navy (appointed 2nd Nov. 1831), was revoked, 9th June, 1832. His predecessor, Sir B. Martin, had been appointed, 1816. See a list of former Surveyors in the Appendix.

Vernon. It may be affirmed with truth, that never was patronage more judiciously exercised, or on a more able and zealous servant of the crown. Henceforth, for a period of fifteen years, he gave his whole heart and soul to the business of his office; and created a revolution in the style of shipbuilding in this country.

The special duties of the Surveyor, as described by the Committee of Naval Revision in 1816, were—to prepare drawings of ships,—to determine the scantlings and dimensions of their frames, masts, yards,—to examine engagements for task and job work,—to propose prices, and correspond about estimates,—to visit the yards,—and inspect buildings and repairs. With some modifications, these duties are still discharged by him, or by persons under his direction; a staff of assistants*, draughtsmen, &c., being allowed him to aid in the scientific branch of his department.

While the dismissal of Sir R. Seppings created some sensation, the appointment of Captain Symonds to this responsible post was sanctioned by the voice of the profession and the approbation of the public at large. It was generally allowed that no man exceeded him in a thorough and intelligent knowledge of all the qualifications which a ship should possess. He had brought his improvements home to the notice of seamen,—the parties best able to form a judgment on this head,—and contrived to obtain their suffrages, by his simple and unambitious manner of stating his views. In place of encumbering his pamphlet on Naval Architecture

* Mr. J. Edye was appointed Assistant to the Surveyor. He is one of our best practical shipbuilders; familiar with all the scientific calculations requisite for his subject, and fortunately unbiased by theoretical dogmas. Possessing untiring zeal, he has proved himself fully equal to the duties of his position; in short, few have done more for the British Navy than this experienced officer, who, in his "executive capacity, has made drawings of every ship built since 1832, and drawn up all the specifications."—*Evidence, in Report of Committee on Navy Estimates,* 1847-8.

with mathematical disquisitions — nice, but useless in their results — he took care to explain the principles of his system in a familiar style, such as he knew would attract and fix their attention; never losing, at the same time, an opportunity of bringing his plans to the final test of experience. The best proof of their soundness was the complete success with which they were attended upon trial; though his opponents always asserted loudly that they could not possibly succeed. But having made up his mind to his cardinal principle of *great breadth of beam* at or near the water line, with a 'fine entry' and a clear 'run,' he boldly threw out the beam, and stood the storm of misrepresentation which poured in from rival shipbuilders, at this daring novelty, with an impassibility which was a marked ingredient in his character.

When his improvements first appeared — which, it is right to remember, he enforced, not as being new discoveries, but only a return to the good old way — the haters of innovation contended that they were heterodox because they were new. Lovers of the prevailing style hugged their ancient favourites, and could not discern the slightest merit in these rising competitors for public admiration; while theoretical reasoners from their books predicted inevitable failures, sneered at his "peg top" models, and wrote bitter articles against his "bathing-machines," as they agreed to call his beautiful productions.

For the first time in the annals of the Navy, the appointment of Surveyor was filled by a Naval officer. This offended two classes of persons, the Master Shipwrights in the Dockyards, who for generations had been accustomed to look forward to that place as their own in right of succession, and the educated theorists of the School of Naval Architecture, who expected (with some reason) to obtain it in virtue of promises formerly held out to them. These parties obtained the ear of

several members of the House of Commons, friendly to the old order of things, who naturally attacked the new Surveyor on political grounds; not that Captain Symonds ever troubled himself about politics, but that they wished to give a fillip to the Government who had put him into office.

On 29th June, 1832, in the debate on the Naval Estimates, Sir Byam Martin and other members objected—that Captain Symonds had no practical knowledge of ship-building, and was unable to make the necessary calculations. He prepared models, but could not put the ship together. To this Sir James Graham replied, "that he acted in adherence to what he conceived to be for the interest of the Navy; and was *firmly persuaded that Captain Symonds was more competent than any other gentleman he could possibly select.* He was unknown to him, except in his profession; but he had selected him on account of the *highly approved ships he had built.* There was a ship, the Vernon, ready for sea, built under his inspection; and he was quite willing that the merits of the appointment should rest on the fate of that experiment. He did not believe that the Surveyor of the Navy was required to be a practical ship-builder. It may as well be said that a *civil engineer should be a stone-mason.* The mechanical part would be superintended by the Master Shipwrights; but the *application and economy of labour, and the discipline of the Dockyards*, were duties connected with the office; and he had an objection that *a person who had been a shipwright should have too close a connection with the other shipwrights.*" Sir George Cockburn joined in the objections urged against Captain Symonds, but admitted there was not a better sailor in existence.

In the following session, Sir J. Graham said, that Captain Symonds combined the advantages of great nautical experience with considerable theoretical know-

ledge of principles. This Mr. G. F. Young allowed to be a just view; but he contended that the latter should be the basis of qualification.*

As to the propriety and advantage of selecting a Naval officer for this important post, we may here quote a few pertinent remarks from a periodical of the day, in defence of Capt. Symonds: —

"The Captain of a man-of-war has time for reflection, opportunity for observation, to the utmost extent; and, by long practice and experimental working, he brings her under that control which almost verifies Byron's sublime idea—

'She walks the waters like a thing of life.'

"He finds out exactly what she can do, where her powers fail, and *why*; and if there be a remedy for any deficiency in her construction, he can apply it. Sailors have an intuitive knowledge of ships, and can almost tell by the *eye*, what their good and bad qualities may be. Habit has produced a discrimination which is almost equal to science; and the lines of a vessel, which the builder imagines are only to be found in the draught in his possession, are as clearly traced upon the retina of a practised sailor, as if the drawing was before him. . . . Had their advice been attended to, instead of having been scouted with contempt by the late Navy Board, our Naval architecture would have been greatly improved. Although seamen have never been permitted to offer their advice upon ship-building, their practical suggestions, pertinaciously repeated, have been attended with more success; and what has been the result? That all the improvements have originated chiefly from Naval officers. To them we are indebted for the iron tanks for water — Truscott's pump applied to them — the chain cables of Captain Brown — the capstern and compass of Captain Phillips — the rudder of Captain Lehou — Rodgers's anchor — Harris's rope — and numerous other improvements." — *Captain* MARRYAT *in the Metropolitan Magazine for* 1832.

Having given a somewhat lengthened account of the Vernon, the first of the Surveyor's large ships, and of the results which followed, we will go back a little way, to take up his other vessels in the chronological order of their launching.

* HANSARD'S *Debates* for 1832 and 1833.

The success of the Vernon in various trials, before she proceeded to sea, brought the following letters: —

*From Admiral Sir T. M. Hardy, Bart.**

"Admiralty, August 7th, 1832.

"DEAR CAPTAIN SYMONDS,

"I sincerely congratulate you on the success of the Vernon. We will now get on with the 16-gun ships, as soon as you can get the drawings ready. Do not forget to measure the largest dock at Plymouth; and get a kind of estimate of the cost, to prepare the dock gates, so as to receive a three-deck ship, of sixty feet beam.

"I remain, dear Captain Symonds,

"Yours ever truly,

"T. M. HARDY."

From His Grace the Duke of Portland.

"Welbeck, September 10th, 1832.

"DEAR SIR,

"On my arrival here, I found your letter of the 3rd inst. I also found one from Sir J. Graham, in which he says, after giving me an account of the result of the day's sail—

"'The triumph was no less complete than undeniable. It was conducted in the fairest manner, and has proved beyond contradiction the soundness and excellence of Captain Symonds's principle of building. I left the squadron yesterday evening, being entirely satisfied with the Vernon's great superiority in all points, and in every circumstance. It was fortunate we were present, since it was not easy to obtain fair play for Captain S.; for, even in a case like this, prejudice and passion warp the judgment and betray the best men into error. Captain S. is now on board us, and he is worthy of congratulation; for yesterday was a day of great anxiety and importance, not to himself only, but to the country, since it demonstrated the imperfection and weakness of our old ships of war.'

"After mentioning future trials off Scilly, he adds, 'but after what I *saw* yesterday no *reports* can change my opinion.'

"In thanking him for this letter, I begged him to let the Snake and Serpent have time to get thoroughly dried.

"After adding my own congratulations,

"I remain, dear Sir, ever yours sincerely,

"SCOTT PORTLAND."

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* Admiral Sir T. M. Hardy, Nelson's flag captain, died Governor of Greenwich Hospital, 1839.

The two vessels here mentioned were 16-gun brigs, modelled by the Surveyor, on increased lines of the Pantaloon. The *Serpent* was launched at Woolwich this year, 1832; she was 102 ft. 5 in. long, by 32 ft. 3 in. beam, and was named by his daughter, Mrs. Bockett.

The *Snake*, a fine clipper brig, built in a private yard by Fletcher and Co., beat the Vernon and every other vessel that tried with her, by the wind; and sailed well, off the wind. At the close of 1832, there was a report that she was lost,—that she had *foundered* in a gale in the North Sea; and some hammock nettings were picked up, which, it was said, were all that was left of her. Certain prophets of evil rather triumphed at this report, but were silenced by her appearance, sound and whole; she had, to their astonishment, weathered out the gale like a duck, and stayed under courses against a heavy head sea. "I have not the least doubt (writes her Commander, W. Robertson, to Sir T. Hardy), but some of our good-natured friends have alarmed everybody about our long absence; as many who have predicted our craft unsafe would like to see their prophecies fulfilled. The truth is," &c. It seems she had missed the squadron, and after searching about for the Admiral, came back to the Downs.

In October, 1834, an officer writes from Rio Janeiro, "we tried our sailing with an American corvette, to windward of us, in moderate weather; and weathered on him seven miles in five hours, sparing him all his flying kites." After doing much good service, the Snake had the misfortune to be wrecked 29th August, 1847, under Commander J. R. Brown, in the Mozambique Channel; all hands saved.

The *Rover*, an 18-gun corvette of 600 tons, 113 ft. long, by 35 ft. 5 in. beam, 16 ft. 9 in. deep in hold (first ordered March, 1829, then discontinued, and converted

into a new ship on Captain Symonds's plan), was launched 17th July, 1832, at Chatham; and showed herself to be a very strong, stiff, and weatherly vessel, carrying her guns high. Going out to the Mediterranean in 1834*, under Commander Sir G. Young, Bart., she beat the Endymion by three days, though that ship had a week's start. In some instances, she went ten knots within six points of the wind. Commander (now Commodore) C. Eden, in 1835, found her not only easy, but "remarkably dry; much to my astonishment," he adds, as he had been warned never to expect a dry jacket in her. She sailed round Cape Horn in a succession of gales, so crammed with stores and provisions for the Pacific squadron, that it was questioned if she could make a safe voyage; she had, also, a very foul bottom. Yet her Captain reports that he never was in a ship so dry and easy, and that she surprised him by her weatherly qualities.

In 1836, Commander A. S. Hammond brought her round the Horn again; a boisterous passage, in the depth of winter. Off the Cape she ran 13½ knots, with a jury main topmast. He says, "the more she is tried, the better we like her;" but he complained that she was undermanned. In the hands of Commander J. M. C. Symonds, in 1838, she had a successful trial with Admiral Elliot's Modeste; and during the whole period that she was under him, she proved herself to be a "remarkably fine corvette." She was broken up in 1845.

One of the first acts of the Surveyor, on coming into office, was to recommend the abolition of task and job work, on the score of economy; day pay being substituted. The estimated saving on the pay of 2560 shipwrights was calculated at 16 per cent. Under the

* Sir J. Franklin, then commanding the Rainbow, reported that the "Rover, in a strong breeze and heavy swell, gained ten miles to windward of us in eight hours."

old plan of job work, more work was done in a given time, but the *waste of materials* was enormous. The skilled hands were also put in three (afterwards two) classes, with great benefit to the Dockyards, but much to the dislike of the men; to whom this and job work were, as he says, a "bitter pill to swallow."

The following ships were built or launched by the Surveyor in the year 1833:—

Vestal,	26 guns, at	- -	Sheerness, 6th April
Racer,	12 „	- -	Portsmouth, 18th July.
Ringdove,	12 „	- -	Plymouth, 18th June.
Pandora,	12 „	- -	Woolwich, 4th July.
Gleaner,	steam vessel, 100 h. p.		Chatham*, 30th Sept.

The *Gleaner* (at first called the Gulnare) was a handsome vessel. In August, 1835, after she had travelled 15,000 miles in the service of the Post Office, she was pronounced to be an admirable sea boat, stiff as a rock, and faster and drier in bad weather than any others of her class. She had shipped but "one sea" since she was built. She was broken up in 1849.

The *Vestal's* measurement was 130 ft. by 40 ft. 7½ in.†; so that she came between the Rover corvette and Vernon frigate. Distance from port to port, 11½ ft. Massie's patent pump was, for the first time, used in her, instead of the old chain pump. She was pronounced by her Commander, Captain W. Jones, between 1834 and 1837, to be a fast ship, in comparison with those of the old form, yet "very easy in the motion, and does not jerk or strain the rigging;" weatherly, and superior to all she was tried with, in rate of sailing. "The above statement is founded on trials with the Endymion, Forte, Challenger, Sapphire, Wasp, and

* The water of the Medway is so foul, that a ship, six months afloat, must be docked to have her bottom cleaned, before going to sea.

† Pett's Sovereign of the Seas was 128 ft. by 43 ft.

Victor. The most remarkable superiority of the Vestal over them all was off the wind, which seems to have been her best point. Close hauled, she weathered and forereached them all. Her weakest point is in light winds, against a head sea." (14th Jan., 1834.) The favourable report of her Captain brought the following letter:—

From the Right Hon. Sir James Graham, Bart., M.P.

"House of Commons, 28th March, 1835.

"My dear Sir,

"I have received with sincere pleasure, but without the least surprise, the very favourable report of Vestal's superior qualities. You are well aware of the high opinion which I entertain of your merits, and of the confidence with which I anticipate your triumph over the jealousy and calumnies of your enemies. I hope you will be neither disheartened nor annoyed by their attacks: they are often the penalty which genius pays to malice. But, on the other hand, be not ashamed to correct defects, when they are proved to your satisfaction to exist; and seek rather to build your fame on *progressive approach to perfection*, than on having struck out a plan at once which was not capable of improvement.

"I remain, with sincere esteem and regard, my dear Sir, very faithfully yours,

"J. R. G. Graham."

A twelvemonth later her Captain says of the Vestal:—

"But even on that point (her weakest point) she is superior to other vessels. Since the last report she has beaten the Racer sloop very remarkably in light winds, and the Belvidere and Sapphire in separate trials, by the wind, blowing fresh. She also proved herself in a gale of wind, with a heavy sea, off Bermuda, to be the best sea boat, and most easy and weatherly ship, that any officer on board had ever seen."—(1st Jan., 1835.)

In 1836, she contended with the President, 50-gun frigate:—

"The Vestal is superior to all the ships of war she has tried with, on every point of sailing, except H. M. ship President, which is equal to the Vestal with the wind abeam, in a fresh breeze.

"The opinion stated as to the comparison with the President, is founded on repeated trials with that ship. The first was off Port Royal, Jamaica, last February, when the President was supposed to have had the advantage; but as that ship got first into the sea breeze, and continued for some time to have it stronger than the Vestal had, there was not a fair opportunity offered for comparison.

"Last June, the Vestal accompanied the President on a passage of five days from Bermuda to Halifax. Both ships were fairly tried, in much variety of weather. The Vestal strove her best in the daytime, but was always kept astern of the flagship at night. The first day, both ships being under all sail, with the wind on the quarter, the Vestal going six and seven knots, gained on the President about a mile an hour, and was estimated to be seven miles ahead of that ship, when she shortened sail in the evening. This was the greatest superiority shown by the Vestal. Another day, both ships being by the wind, with a moderate top-gallant breeze, tacked together at 9 h. 30 m. A. M., the President then being about three miles exactly on the Vestal's weather beam. The breeze was perfectly steady, and did not vary till noon, when the Vestal had weathered in the President's wake, and was precisely at the same distance as at 9 h. 30 m., both ships having continued on the starboard tack. Afternoon, the wind favoured the Vestal, and became by degrees free for Halifax. In the course of those trials, the President appeared to the officers of the Vestal to be (except on the first day) by far the fastest ship which they had contended with; and it sometimes required great attention to the trimming, to maintain advantage over the President."—(1st Jan., 1836.)

At the end of the year, her Captain states, with reference to former reports of her sailing qualities, that—

"The experience of the last twelve months has confirmed and strengthened that opinion.

"The above statement is respectfully made with reference to the Vestal's qualities as an experimental ship, and to prove that she has been equal to the duties of the station during peace. Her sailing as a cruiser against the slave-trade*, her capacity for carrying troops, and the celerity with which she

* Within eight days, in September of this year, she captured *three* fast clipper slavers, with 1,254 blacks on board.

could bring an imposing appearance, wherever the protection of British interests required it, have all been shown within the last year. I have only to add my respectful opinion, that while this ship performs the duties of peace, at less, or not greater expense than former-built vessels of her tonnage, a very small addition to her complement of men would suffice to give her formidable efficiency for all the purposes of war."—(31st Dec., 1836.)

And, on her return home, he adds:—

"In former reports, the instances have been enumerated in which the Vestal's qualities have been tried in comparison with those of other ships. Nothing has since occurred to induce any change of opinion, or to furnish new data for remark. The Vestal is now paid off, at the end of more than *four years*, with the *same lower masts, topmasts, and bowsprit* with which she was originally fitted."—(25th Sept., 1837.)

Captain J. W. Carter, who commanded her in 1839–40, reports:—

"Having during the last year experienced for a considerable time exceedingly bad weather, we consider her a most admirable sea-boat, lying-to beautifully, and, generally speaking, perfectly dry."—(1 Jan., 1831.)

Between 1844–47, she was on the East India station, in command of Captain C. Talbot. It was while going out thither that she made a rather celebrated passage. She left England for America, Nov. 1843; then went to Monte Video, Cape of Good Hope, Port Jackson (thirty-three days from the Cape), and Hong Kong (thirty-five days from Port Jackson); having sailed 27,699 miles in 181 days, an average of 181 miles a day.

On one occasion, about the end of 1835, she got ashore at La Guayra, but was saved by her safety-keel, losing only sixty feet of false-keel.

The *Ringdove*, a sister ship to Racer, was 100½ ft. long, by 32 ft. 4 in. beam, and 15 ft. 2 in. deep in hold. On 4th March, 1835, she had a trial with the Castor and Pique, and "behaved beautifully, carrying a heavy press of canvas against a head sea, as long as the

frigates, — always preserving a decided superiority." The Pique was then a new ship, and had been blockading Santander for twelve days in the most severe weather. Captain Rous (of Pique) says, "Ringdove is wonderful. I never saw a brig beat a large frigate as she beat Castor." Of the same vessel, Captain W. Lapidge reports, in 1837, that she stowed her provisions well, was remarkably stiff, easy, and quick, very weatherly and well built.

The following, respecting the *Pandora*, now a surveying vessel, came from an experienced seaman, whose position at the Falmouth Packet Station enabled him to give a peculiarly valuable opinion on the comparative merits of the old 10-gun brigs and the new 12-gun brigs of the Surveyor:—

From W. Broad, Esq., Lloyd's Surveyor at Falmouth.

"Falmouth, Nov. 4th, 1833.

"SIR,

"It is more than probable you will observe a copy of a letter, addressed by a business firm to the Secretary at Lloyd's, in reference to the new packet vessel just arrived here. I am induced, as a matter of feeling and justice, to address you individually, and without further apology, for the purpose of offering, as an old and experienced sailor and surveyor of shipping, my unbiased testimony to the excellent qualities of the Pandora, the vessel referred to; and to assure you, as the projector, that the communication to Lloyd's officially, has been penned from full conviction of her merits, after personal inspection. The voyage to Jamaica will fully demonstrate the qualities of the ship, and will show whatever may be necessary to alter or amend; but I venture, nevertheless, to prognosticate that she will answer the best expectation of her Commander, and give satisfaction to all who may sail in her.

"In taking the liberty of addressing you on this subject, I am not a little prompted by the satisfaction I feel at the prospect of the present 10-gun brigs being abolished in the British navy; and I really see nothing that they are fit for, but to rise upon for South Sea whalers, for which trade, if sold, they might realise nearly their value.

"The credit of this innovation is doubtless due materially to yourself; and I sincerely hope the honourable appointment you hold under the Admiralty may long be enjoyed by you, and prove as beneficial to your personal interest, as it is likely to prove to the country at large.

"With this feeling, I beg to subscribe myself, Sir, your most obedient servant,

"WM. BROAD.

"To Captain Symonds, R.N.
&c. &c. &c."

This opinion was confirmed by her first trip. Her Commander, Lieut. W. S. P. Croke, states that she ran home "from Jamaica in twenty days, having made the whole voyage in ten weeks and two days, remaining at Jamaica eight days,"—the Admiralty time allowed being fourteen weeks, with two to four days only at Jamaica. "This is, I believe, the shortest voyage made by any packet to Jamaica. It is the more fortunate, as we have been the bearer of the Jamaica *Slave Bill*, which Lord Mulgrave was most anxious should arrive in as speedy a time as possible." Her rate was 11½ to 12 knots. "We have not lost a rope-yarn nor a chip of wood . . . . Every man and officer is pleased with her, particularly *in scudding*." (22nd Jan., 1834.) This last quality is a most valuable one in a ship.

Three years later, Lieut.-Commander R. W. Innes reports that she stows "five months' provisions," "never heels more than 5°," carries her lee-ports "very high out of the water," is the "easiest vessel we ever sailed in," "stays like a cutter," has "fore-reached and weathered everything," and "beaten all we have sailed with in a most extraordinary manner." (March, 1836, to January, 1837.)

In a private letter* he states:—"My outward passage (to Halifax) pleased all the people there. . . . .

* See Correspondence.

She was visited by all classes, and gained the admiration of all. . . . . I repeat my thorough conviction, that she is the safest vessel I ever sailed in. . . . . We encountered a very heavy gale from the westward. . . . This has proved to me her excellent qualities on all points; and her sailing astonishes me." She worked from the Land's End round to Falmouth, he adds, in fourteen hours, against a very strong wind and sea, when no other vessel could get round.

In November, 1846, when commanded by Lieut. Wood, in Panama Bay, she was struck by a waterspout, "throwing all aback, and giving the mainsail a good twirl." It was found to be a column of *salt* water, twenty to thirty feet broad at the base, and turned from left to right, as hurricanes do in the northern hemisphere.

The *Racer* was launched in presence of the Queen (then Princess Victoria) and the Duchess of Kent. Length 100 ft. 8 in., beam 32 ft. 4¾ in.*

In 1834, the Surveyor launched the following vessels: —

Pique, 36 guns (now 40) at	Plymouth,	21st July.
Blazer, steamer, 120 h. p.	Chatham	May.
Tartarus, steamer, 136 h. p.	Pembroke	23rd June.
Royal Adelaide, yacht . . .		13th July.

The *Royal Adelaide*, a miniature frigate of 50 tons, was built for William IV., and now floats in Virginia Water, the beautiful artificial lake at the further end of Windsor Forest, begun by the Duke of Cumberland in the last century. She cost, with fittings, 46*l.* a ton.

The *Pique*, launched 21st July, was the "fiftieth" ship launched by the then Master Shipwright, Mr. T. Roberts. Her dimensions were 160 ft. by 48 ft. 10½ in.;

* "About 100 by 35 is a good proportion for a great ship."—RALEIGH'S *Discourse on the Royal Navy.*

her tonnage was 1633; and she was armed with 32-pound guns. She was named after the Surveyor's favourite frigate, the Pique *, which he brought into such complete order, in the West Indies, when First Lieutenant, under Sir Anthony Maitland.

In a report to the Admiralty, June 19, 1835, Captain the Hon. H. J. Rous states, after two months' experience in February and March, in the Bay of Biscay, that —

"The Pique is a most powerful ship in bad weather, and very superior in carrying sail off a lee-shore. Her stability is so great that it is difficult to make her heel over 6°; when, under the same canvas, one of the old class of frigates would be inclining 12° or 13°, and consequently would be incapacitated from fighting her guns. She stores upwards of six months' provisions, stores, and 170 tons of water, under hatches. She rolled deep, and lurched quite to windward under easy sail. I expect this will be relieved by diminishing her ballast from 52 to 30 tons," &c.

He adds,

"With respect to the relative qualities of fast sailing between the Castor and Pique, the latter, in fine weather, beating to windward, has rather the best of it, and the former has a slight superiority, off the wind; but blowing hard, against a heavy sea, the Pique can outcarry and bury the Castor."

About this time, she tried with the Ringdove, but failed, under "very disadvantageous circumstances."

In a subsequent letter (1837), Captain Rous refers to the temporary victory obtained over her by the Inconstant †, through bad trim, and pointed out some of

* Formerly the French (or Dutch ?) Pallas; and a new ship, when captured by the Greyhound and Harrier, 1807. Length, 146 ft. 7 in.; beam, 39 ft. 7½ in. She was broken up, 1810. There was another ship of this name, La Pique, taken at Point à Pitre, Guadaloupe, 15th Jan., 1795, after a desperate fight of five hours, by the Blanche, Captain Faulknor, a gallant young hero, who was shot in the act of lashing the Pique's bowsprit to his own capstan. This was the man who, in his little Zebra, took the Bienvenu, from under Port Royal, Martinique.

† Inconstant, by Captain Hayes, was the same length as the Pique, 160 ft., but only 44 ft. 8 in. in beam. The Castor, built by Sir R.

her defects, arising partly from causes over which the Surveyor had no control. Her masts were too short; her armament was not heavy enough; and her complement of men not sufficient to work the guns, or navigate the ship, in bad weather.

"The top-masts supplied to the Pique are too short to hoist her sails; and in a ship where the extremes under water are very fine, and consequently requiring the weight to be concentrated as much as possible, the magazine eats up the main hold; and 10 tons of powder occupy a space capable of stowing 50 tons of water, in the centre of the ship; while the body of the wing tanks being 5 feet above the kelson, leaves a vacuum where there ought to be the greatest weight." She carried her ports, when on an even keel*, 8 ft. 6 in. from the water, and her lee ports very high.

In the autumn of 1835, she was ordered to Canada to bring home the Governor, Lord Aylmer; and, while returning, she met with an accident which served to bring out most signally the excellent qualities of her build, as well as the seamanship of her Captain. On the 22nd September, with Lord and Lady Aylmer on board, she grounded at Point Forteau, on the Labrador coast, in the mouth of the St. Lawrence. There was a heavy sea running when she struck, about 10 P.M., which kept lifting and bumping her the whole time she was on shore, upwards of ten hours. They started twenty guns overboard, and 100 tons of water from the tanks, to lighten her. Next morning she floated, and was got into Wolf's Cove, where she was examined. In spite of these severe trials, her strength was unimpaired; and so confident was her Captain of her soundness, that, without waiting to refit, he started again, across the

Seppings, 1832, was altered, it is said, "on the stocks, to steal a march on Captain Symonds's ships."—MARRYAT, in *Metropolitan Magazine*, 1832.

* An "even keel," *i.e.*, a keel parallel to the surface of the water.

Atlantic. The injuries she had received made it a most perilous adventure, as she was leaking twenty inches an hour. It blew a gale the whole time, at the commencement of which she *lost her rudder;* and on her arrival in the Channel, after a run of 1300 miles, and a narrow escape from the rocks of the Casquets, it was with some difficulty that she was brought, thus disabled, into Spithead. She was a black-painted ship, and, when docked, the whole town of Portsmouth went to see her; every one saying it was a miracle that she got home safe.

"Your beautiful ship," writes Captain Rous, 13th October (the day of her arrival), "has had the hardest thumping that ever was stood by wood and iron. A strong current swept us in on the shore, off Labrador, in the Belleisle Passage, and we lay on the rocks, beating our souls out, for 10½ mortal hours. Luckily her masts stood, and everything else but the fore-foot and heel, which will be found wanting. Three days after we left the land, we lost our rudder, the pintles of which must have been broken by the rocks; and we steered her home by *fifteen fathoms of cable.*

"The rudder you sent a description of did not answer in a heavy sea, neither did the Pakenham rudder. We found nothing like the main and cross-jack braces. Twice, only, blowing hard, with a heavy sea, did she get out of our hands, when we hove her to, with her head the wrong way; and I know of no other ship that would have stood such a wrangle.

"We are all well on board, and *understand the art of pumping.*"

The Pique was saved by her shape, her safety keel and excellent caulking; when a round full-bottomed ship of the old construction would have been knocked to pieces. So much of the stern, keel, and dead wood was torn away, that had a thorough examination taken place, she would never have been allowed to make the voyage. There is a model of her at Somerset House, as she appeared when hauled up into dock. Close to the keel, near the step of the foremast, was a great hole, 13 ft. circumference, ground out by the rock, which had rubbed away the wood to within *two inches* of the inner side of the floor timbers. There were two other large

holes; especially one near the bread-room, 16 ft. round and 3 ft. deep.* Yet it is worthy of remark that, when got afloat after striking, it was found by sights placed along the deck, that her "sheer" was not strained in the least; her knees were not loosened; and her frame remained on the whole as strong as wood and iron could make it.

A 36-GUN FRIGATE.

The Captain and officers were tried by a court-martial, for running the ship ashore; but only to be fully acquitted, as everything tended to show that they had acted with the utmost skill, coolness, and intrepidity †; which procured all hands the formal thanks of the Board.

* See an engraving of her appearance in the *Nautical Magazine*, 1835.

† Captain Rous afterwards stood for Westminster, and at the

The Pique, at a later period, was commanded by Captain E. Boxer *; and in the Correspondence there is (besides other testimonies) an elaborate report by this experienced seaman on her admirable qualities. He represents her as a first-rate man-of-war, possessing great strength, capacity, and extraordinary stability. This was in 1837–8. In 1841, he describes her behaviour through a terrific gale, when employed on the coast of Syria, in the operations against Mehemet Ali.

"During the late awful gale in the Bay of Acre, with a most tremendous sea, I was compelled to cut away her masts to save her from going ashore; having lost two bowers, one spare, and one stream anchor. She rode particularly easy, not shipping any water through the hawse-holes, or hardly throwing any spray over the forecastle; and rolling little, not even wetting the main deck."

Sir James Graham having resigned office, 27th May, 1834, in company with Mr. Stanley and the Duke of Richmond, on account of the Irish Church question, Lord Auckland was appointed First Lord of the Admiralty. Other changes, produced by the retirement of Earl Grey, and the removal of Lord Althorpe to the House of Peers, broke up the Reform ministry; and on the 8th December, Sir Robert Peel became premier, with Earl de Grey, Sir G. Cockburn, &c. at the Admiralty. In the course of a few months, the Whigs and Lord Auckland returned, April, 1835. Sir T. Hardy, who had been appointed, in 1834, Governor of Greenwich Hospital, *vice* Sir R. Keats deceased, was

hustings was met with the usual call of "Who are you?" He answered, in a hearty way, "Captain Rous, of the Pique, who brought her across the Atlantic without a rudder." "Bravo, Rous!" shouted every one; and "Bravo, Rous!" became, for a time, the common cry in London. In November, 1839, the Pique's foremast was damaged by lightning, in the St. Lawrence, near the scene of her former mishap.

* This zealous officer died a Rear-Admiral, while superintending the Transport service in the Black Sea, 1856.

succeeded by Admiral Hon. G. H. Dundas, as second Lord. Upon his death soon after, Sir C. Adam took his place, and Sir W. Parker had the store department. In September, Lord Auckland went to India as Governor-General, and Lord Minto became First Lord, a position which he occupied until the fall of Lord Melbourne's Government in 1841.

During these political changes, the opponents of Captain Symonds were not idle. On the 16th March, 1835, Mr. G. F. Young, in the discussion on the Navy Estimates in the House, again complained of the appointment of Captain Symonds.

"He was supposed to be the inventor of a plan which was not his, but was known fifty years ago. He did not mean to detract from his merits, but he complained that the country was put to the expense of altering vessels, to be remodelled by him; the Boscawen, for instance. . . . . He would ask the noble lord (Ashley*), whether he had seen any reports of experienced naval men, as Sir G. Cockburn. The system of building new ships wholly on Captain Symonds's plan was much to be deprecated."

Captain G. R. Pechell said—

"He thought the professional knowledge and practical experience of Captain Symonds had been of the greatest possible utility to the service; and the late Board (under Sir J. Graham) was deserving of the best thanks of the country. His ships were, in point of *equipment, speed, and capacity*, fit to go to any part of the world, and were a credit to England."

In reply, Lord Ashley said, that he had "inquired, and found that the Surveyor's ships were generally and highly approved of. One, though considerably larger than old ships of the same class, had cost less in building, by 14,500*l*."

Sir J. Graham then stated, that he "held himself responsible for the appointment of Captain Symonds. . . . . He had built several small ships; the largest now

* Lord Ashley, now Earl Shaftesbury, was the Civil Member of the Board, in charge of the Estimates.

was a frigate; two 74's and one first-rate were building. Their *excellence had been demonstrated to the satisfaction* of every individual competent to form a judgment; and he was willing to leave the question of the propriety of the appointment, to the judgment of Sir George Cockburn, who had commanded the Vernon *, and was to join the Admiralty. He was persuaded that Captain Symonds had incurred no needless expense in experiments; on the contrary, the former surveyor had been in the habit of asking a vote of 800,000*l.* for materials; while all that Captain Symonds at present asked for was 358,000*l.*; so that the difference was 100 per cent., and the arsenals were never more abundant." Sir James afterwards added that in making the appointment he had taken the opinion and advice of Sir T. Hardy, Sir W. Parker, Sir J. Rowley, &c. "There was hardly any station in any part of the world in which there was not one of Captain Symonds's ships. The largest frigate he had built was now in the Mediterranean, where it would sail in competition, not only with the whole of the English squadron, but with many foreign ships. By the end of the year reports would be received at the Admiralty from every quarter of the globe." Sir Edward Codrington also "bore testimony to the excellence of Captain Symonds's principles;" and added that the "experiments he had witnessed † had induced him to recommend the Surveyor to the attention of the late Government."

A few weeks later, when Mr. Young, on the 6th April, hoped that the Government would not build upon Captain Symonds's plan until it was ascertained by experience to be a good one, Sir James Graham took the opportunity to say, that he had just received a letter from Captain M'Kerlie, now with the experimental fleet in the Mediterranean.

* See p. 137. † See p. 88.

"In a fleet in which the Endymion was the fastest frigate, signals had been given every day for the rate of sailing of the fleet, together or alone; and the Vernon astonished them all, as *she walked away from the other vessels* as if they had been merchant ships. . . . . She left them *behind like magic.*" *

In reply to Mr. Young's charge, Sir E. Codrington denied that Captain Symonds's ships did not sail well in a heavy sea.

The official reports of the Vernon from her successive Captains confirm this last statement. They all uniformly agree that she was easy in her pitching and rolling, as well as quick and weatherly in her movements. But, so early as January, 1837, Captain M'Kerlie remarks that, owing to the unseasoned wood of which she was partly constructed, several timbers and the binding strakes in the hold and bread room were badly affected with *dry rot.* Against this insidious enemy of our British hearts of oak, no successful precautions have hitherto been taken; and in this instance the Surveyor was the last person that could be made responsible for its appearance.†

From the Right Hon. Sir J. Graham, Bart. M.P.

"Grosvenor Place, 27th April, 1835.

"MY DEAR SIR,

"I approve highly of the documents which you have submitted to me; and I think they should be laid before Parliament, and as soon as the House reassembles, I will move for them. . . . I hope and think the new Board of Admiralty will give you fair play. Admiral Adam, I believe to be a sensible man. Sir William Parker is a superior one; and Lord Auckland I am disposed to think is just and prudent.

"I am, always, yours very truly,

"J. R. G. GRAHAM.

"Captain Symonds, R.N."

* See Correspondence.

† See a letter, further on, from Sir J. Graham, dated 8th January, 1837.

From the same.

"Grosvenor Place, 17th July, 1835.

"My dear Sir,

"I never entertained the least doubt of the propriety of the order to reconvert the Boscawen*, but I am glad that it has been found to be necessary, as well as expedient; and I am sure your discharge of the duties of Surveyor will bear, in every particular and in the long run, the strictest scrutiny.

"I return your report respecting the stern, which is as satisfactory as we can desire.

"Yours very truly,
"J. R. G. Graham.

"Captain Symonds, R.N."

The Surveyor's vessels launched this year, 1835, were the following:—

Vanguard,	80 guns,	line-of-battle ship,	Pembroke, 25 August.
Cleopatra,	26 guns,	- - -	Pembroke, 28 April.
Wanderer,	12 guns,	brig - -	Chatham, 10 July.
Alert,	8 guns,	brig - -	Rotherhithe.†
Ranger,	8 guns,	brig - -	Rotherhithe.†
Star,	8 guns,	brig - -	Woolwich, 23 April.
Express,	6 guns,	packet - -	River Thames.†
Swift,	6 guns,	packet - -	River Thames.†
Linnet,	6 guns,	packet - -	Cowes.
Hermes,	steamer,	220 h. p. - -	Portsmouth, 26 June.

The Alert, Ranger, &c. were built to replace the old dangerous Falmouth mail packets, and vessels of that class.

Lieut.-Commander C. Smith, of the *Star*, writes, 1837:—"I find the lightest air affects her; so much so, that in a calm great pains are taken to keep her head the right way;" she was so apt to forge ahead of her own accord. As to her character as a sea-boat—"I

* The Boscawen, after being kept many years on the stocks by various Boards, and suffering many alterations, was at length finished in 1844, on Captain Symonds's lines.

† Ranger and Alert, built in Bottomley's private yard. Express and Swift in Colson's.

find her motion unlike any of H. M. ships I have belonged to; she rolls quick, but not deep; pitches deep, but remarkably easy. . . . . I am not the least apprehensive of her being taken aback in any weather. . . . . I have seen her rise to a sea with stern way, as cleverly as she does with head way." Speaking of her strength, her Commander says, when he joined he was told that, from the height of 'tween decks, she would work in heavy weather, but, "on the contrary, she continues as solid as a rock;" and when he thought to strengthen her midship beams in a gale, by shoring them up, "they remained all through the bad weather without moving a hair's breadth." (20th Jan. 1837.)

Of the *Alert*, Lieut.-Commander C. H. Norrington reports, that she "wears and tacks to admiration," in all kinds of weather, including heavy gales and a partial hurricane; and that in a strong breeze, on more than one occasion, "she has gone upwards of 13 knots" for two hours together. (21st January, 1837.)

Lieut.-Commander T. W. Turner states, respecting the *Ranger* *, that in trying her rate of sailing, when beating into the Tagus, with a French 10-gun brig, L'Alcyone, reputed to be one of their fastest vessels, she "both weathered and forereached on her;" and afterwards, "we beat out against a young flood tide, and a heavy sea at the bar, when a French frigate, L'Hermione, was compelled to put back." (22nd February, 1837.) On the 15th February, 1838, she went from her moorings at Falmouth, and drove broadside on, under Trefusis Hill, where she remained through several days of bad weather; the sea breaking violently over her, and driving her, bodily, 12 or 15 feet up the rocks. She was at last tugged off by sheer force; yet such was her excellent build, her bottom and frame were so solid and stout, that no alteration was observed

* An old Ranger, a revenue cutter of 14 guns, foundered off Yarmouth, 1822.

in her "sheer" or form, nor was a single timber started.

The *Cleopatra*, a pretty frigate of the Vestal's class, was launched at Pembroke. She was the same length, viz. 130 ft., as Sir R. Seppings's Andromache, built at this Dockyard in 1832, but she had 4 ft. 7 in. greater beam. Her Captain, G. Grey, reports most favourably of her qualities, between 1835 and 1838; which was confirmed by a subsequent report of Captain C. Wyvill, in 1842–3. In a heavy gale to which she was exposed, in September, 1835 (going out to St. Petersburg, with Lady Durham on board), her splendid behaviour was the admiration of all hands; "the harder it blows, the easier she appears to be." Her running ashore at Lassoe Island, in the Baltic, only proved her strength, and how well ships of her construction take the ground; for after striking "very heavy for about twelve hours, out of the six and twenty that she was ashore," she had received little or no damage. After being four months at sea, she had strained nothing, and had not so much as a leak in one of her decks. She beat everything she fell in with. In 1836, she tried with a fine sailing American brig, which she soon weathered and left astern; and then with a celebrated French corvette, L'Ariane, at Rio, beating her, "bye and large," to the great disappointment of the French Admiral, who was confident of his countrymen's success.

The Commander of the *Express*, Lieut. W. P. Croke, between 1836 and 1840, characterises her, as a quick but easy ship, and a credit to her builder. "A child might steer her. I have seen her steer herself for twenty minutes." On the 27th November, 1838, at the attack on St. Juan d'Ulloa, by the French, she was boarded by the Creole, corvette, and a pilot taken out of her, for which an apology was made by Louis Philippe's Government.

Of the *Wanderer* her Commander, writing from Port Royal, says, "Going before the wind in moderate weather, the wheel is frequently not moved for an hour; blowing hard and scudding in a heavy sea she steers very easy: in fact, she is altogether a remarkably fine vessel." During some days of severe weather, when the wind blew at times a perfect hurricane, with a broken and heavy sea, "she was very easy; and though, from the constant breaking of the sea, she shipped a good deal of water, she never strained a rope-yarn." The Spey, Rainbow, &c., in the same gale, suffered considerably. (22nd December, 1837.)

The *Vanguard*, 80 guns, the first line-of-battle two-decker built by Captain Symonds, and the largest of her class, was launched 25th May, 1835, in the presence of the Duke of Portland, and others. Length 190 feet, or 2 feet short of the Bellerophon, of 80 guns; but her beam is 57 feet, or 7 feet more than the Bellerophon, and 1 foot 6 inches more than the Neptune, a first rate, built 1832.* In fact she was then the broadest ship in the Navy, and the broadest ever built in England. Tonnage 2609, or only 96 less than the Neptune, and 549 more than the Bellerophon. She cost 62,115*l.* complete for sea. She carried 630 men, and was armed with 32-pounders, a dozen of which were afterwards exchanged for 68-pounders, on the lower deck, &c. It is worth remarking, to show how scientifically she was constructed, that while taking in her ballast, stores, guns, &c., various persons urged the Surveyor to make alterations in the stowage, to bring her down the more certainly, as they thought, to the line of floatation. He stuck to his own plans, however, and she floated at the very inches, fore and aft, predicted.† When fully loaded her midship port was 7 ft. to 7 ft. 7 in. out of the water.

* The Caledonia, now the hospital ship, off Greenwich, and the Neptune, are sister ships.

† *Nautical Magazine* for 1835.

In consequence of her unusual size she was able to give better quarters, and more room for the men at the guns, and to lodge, mess, and berth them better than any other ship; the increased allowance of room being two inches on the average.

In her first trip it was said she strained herself in the Bay of Biscay; instead of that, no ship could have behaved better, though she was loaded with 300 troops and stores for the fleet, which made her 143 tons heavier, and brought her down 18 to 20 inches deeper, than she ought to have been. Thus hampered, she made the run from Cork to Gibraltar in six days; her speed being so good that the "log was hove twice and thrice, before they could be persuaded she was going so fast."

Captain the Hon. D. P. Bouverie *, who commanded this "noble ship" for a year, ending 22nd March, 1837, reports that the "comparative stability" of the Vanguard was always remarkable; "admitting of the lower deck ports being kept up and her guns fired horizontally," when her consorts were obliged to bar in. She heeled only 6° to 8°, when other ships indicated twice as much. At first her ballast was 140 tons, but "was reduced to 70, which we found to be quite as much as was necessary." As to her behaviour at sea, she was "easy in all her movements, without straining a rope-yarn." In a heavy gale of wind there was no "working of her masts, nor straining of her rigging, nor symptoms of weakness in her hull; no discoloration of the whitewash of her wings from leaks." "She stows upwards of 400 tons of water, and could carry with perfect ease, five months' bread and six months' provisions of all other species," and an abundant supply of stores. "She stays and wears beautifully;" this was proved by her working into Ply-

* Died a Vice-Admiral, 1850. See, in the Correspondence, a letter of Commander (now Sir B.) W. Walker, of 12th Dec. 1837, to the Admiral, as to the Vanguard's strength.

mouth Sound, at different times, when it was "difficult to keep her in her station, astern of the Bellerophon; and in beating into the Cove of Cork, on 20th September, 1836, she spared that ship royals and courses, and actually worked through the Narrows under topsails, top-gallant sails, jib, and spanker. She also beat into Malta harbour, in January, 1837, with the wind dead out, and anchored abreast of the outer *baracca*." He then refers to the remarkable manner in which she went to windward of the squadron in the trials of sailing in 1836.

In a subsequent trial with the Caledonia, Rodney, Asia, and Russell, the Captain of the Rodney * writes (28th June, 1837) from Malta. "The Vanguard went to windward of the Rodney in a most extraordinary way. In 1½ hour she weathered 2½ miles dead in the wind's eye; in short, I could not have believed it possible, if I had not seen it. . . . . We have no chance with Vanguard, I am positive, on any point. . . . She is a beautiful man-of-war, notwithstanding what your enemies may say." Captain G. B. Martin of the Caledonia states, in a trial two days before, that the "Vanguard hauled out of the line just like a cutter . . . and was 6 miles on our weather beam in 3½ hours." The opinions of such officers would of course have due weight with those who had been deceived by the perverted accounts which appeared in the papers respecting the Vanguard. Her superiority made some cry out that she was "flying light;" and every ship in the squadron was, in consequence, ordered to complete four months' provisions. But the final result was, that

* A fine 92-gun ship, built, 1833, by Sir R. Seppings. Sir T. Hardy, writing to Sir W. Symonds, on 29th July, says, "Captain Hyde Parker's letter (of 28th June, in the Correspondence) has quite established the Vanguard's character." A few months later, he advises Sir William not to be "persuaded to allow Vanguard to continue her 40 cwt. guns on her quarter-deck and forecastle, with the 68-pounders on her lower deck."

"whether light or deep, on a wind, or off a wind, in light or strong breezes, Vanguard is far superior to all."

Captain Dunn, of Vanguard, on the 29th June, in stating that he is satisfied she can carry the largest guns just as well as she does those she has (*i. e.* 32-pounders), asks, "and with her superior qualities of working and coming up with her chase, with her fire so concentrated, what could stand a second broadside from her? There is also a great advantage to be obtained from her breadth, that you may reduce the channels at least two feet, which would make the quarter deck guns to run out clear of the rigging."

In 1842, the same officer writes:—"I can safely aver that up to this hour she has never been beaten by any ship or vessel on any point of sailing, since I have commanded her; and as to her qualities as a sea-boat, you shall judge for yourself, when I tell you that I have tested her in *three* severe gales, — one a hurricane off Alexandria; and here she is, without having carried away a spar or sprung one, or even stranded a rope-yarn of standing rigging, alow or aloft; so that she well deserves praise for so safely and so proudly doing her work; the more especially, when some of the finest ships have suffered severely; such as Powerful, Ganges, &c." (27th January.)

In October her Commander says, "The Cambridge, a noted fast sailing ship during this tour (in the Levant), has been our companion; and in every instance we have beat her in a most undeniable way. *Bigoted as all generally are to their ships*, the Captain and officers of the Cambridge were more particularly so, knowing the superior sailing of that ship when on the South American station; but there is not now a dissentient voice on board her, of the great superiority shown by the Vanguard." (28th October, 1842, Malta.)

She was paid off in August, 1843, at Plymouth.

Her Commander says, "It is with the greatest regret of all on board that we are to be paid off at this port; as we were in hopes of being seen somewhere to have had the ship duly appreciated." They were all proud of belonging to such a vessel, and of her wonderful superiority over others. This the most prejudiced were obliged to acknowledge. The appearance she made, and the zeal and activity of all her officers and crew were as much attributable to the ship they had to work upon, as to a sense of duty. Only two spars had been carried away, and one sprung, in four years and eight months. "Our lease in her has certainly expired, but it is almost a sin to pay her off."

These opinions are supported by later testimony. Captain G. W. Willes, in 1845, describes her as a "noble man-of-war, carrying her lower deck guns a good height out of the water... She stands particularly well off under her canvas.... I consider her superior and faster than any ship in the experimental squadron.... Although quick in her rolling motions, she does not strain either her standing rigging or hull." (17th October.) The next year, 1846, Captain F. Moresby says, "Being confined to my cabin by indisposition, I cannot account for the extraordinary manner in which, under such moderate sail, the Superb * and Vanguard ran ahead." (25th November.) And some months after, Commodore Sir F. Collier says, "The press of sail carried by the Vanguard, in a trial on the 19th inst., against a strong head sea, was such as I never before witnessed." (29th May, 1846.)

The *Swift*, packet, was 95 ft. 5 in. long, with 30 ft. 3½ in. beam. The dimensions of the *Hermes*, built for packet service in the Mediterranean, were 150 ft. 1½ in., by 32 ft. 9 in. Her filling in and trussing were on a new plan, which answered so well, that in launch-

* Another 80-gun ship of the Surveyor's, built 1842.

ing she *broke nothing*, and was found some time afterwards as dry as when she left the blocks.

From the Right Hon. Sir J. Graham, Bart., M.P.

"Netherby, 17th January, 1836.

"My dear Sir,

"I have received the enclosed letter from Captain M'Kerlie *, which has relieved my mind from some anxiety occasioned by the adverse reports of the implacable enemies of Vernon. As I shall be in London in a fortnight, I will not trouble you to answer me; but I shall be anxious to know what is Captain Elliott's official report, and what the opinion of Sir Josias Rowley. The Barham had had a great advantage in being so lately out of dock, and I hear Corry is a better jockey than old M'Kerlie. My faith, however, remains unshaken in the superior merits of your vessels. They appear determined to try them as far as taking the ground is concerned; for I see they have bumped the Vestal † as well as the Pique; and it appears to me that every Captain thinks it his duty, in the course of his three years, to try the experiment how his ship will take the shore.

"I am, my dear Sir,

"Very truly yours,

"J. R. G. Graham.

"To Captain Symonds, R.N."

This alludes to the defeat, for once in the way, of the Vernon, which, in some of the experimental trials of 1835 in the Mediterranean, was left behind by Captain A. L. Corry, of the Barham. Captain Corry, who was a "crack" yachtsman, was so confident of his superior jockeyship, that after bringing in his own ship first, he offered to go on board the Vernon and place her in the same position. A good ship is a balance of opposing qualities, and, like a thoroughbred horse, is so "ticklish" a thing to deal with, that a very little mismanagement will put her out. Under one officer she may be made to do anything, and may fail egregiously under another, — all things remaining the same, except the stowage or trim: with this necessary distinction,

* See Correspondence. † See p. 154.

however, that while the stability of a well constructed ship for a time may be disturbed by bad stowage, an ill-constructed ship can seldom be improved by the best stowage. In set trials, the Surveyor's ships almost invariably came out first. But the best test of a ship is her general behaviour in the wear and tear of active service; and tried in this way, it may be affirmed that nearly all his ships, under the various circumstances of employment at home and abroad, bear a remarkably high character. What more can be reasonably expected of the productions of any man?

*From Captain A. L. Corry, R. N.**

"14th Feb. 1836.

"DEAR SIR,

"I have arrived thus far on my passage to England, and when the duty which I have to perform here is completed, and the ship put to rights, I shall proceed to Lisbon and Spithead. We have had some very heavy gales since leaving Malta, which has proved more ornamental than useful to our paint, &c. &c.

"My object in writing to you from hence, is to state that it is my intention to offer my services as soon as the Barham is paid off, although I am not very sanguine or indeed anxious upon the subject; but if their Lordships should think proper to appoint me to another ship, I should prefer one of your construction, in order to satisfy myself upon a subject so very much contested; and I need hardly say that should my appointment take place, she shall have all the justice which may be in my power to render her. I am not aware whether the Goliah (at Chatham) is finished and launched, but I was much struck with her lines, and should like to try her; but for a trial of the *principle*, I should prefer the very largest you have built.

"Believe me very truly yours,

"A. L. CORRY.

"Captain Symonds, R. N."

One of the inevitable consequences of the defective system pursued by the Navy Board before the time of Captain Symonds, of merely copying what other nations

* Died, a Rear Admiral, in 1855.

did, or making improvements in detail, was an absence of method and of reference to anything like a fixed standard, in the furnishing and refitting of our ships. The dimensions of spars and sails, for example, were so various, as to run into *eighty-eight* distinct classes, or "establishments," as they are termed, borrowing the French word. This led to a plentiful multiplication of stores at home and abroad; but at the same time they were so capriciously arranged that it was a common thing for ships of the same class to be unable to supply each other, in case of emergency. Though rated alike, their spars, &c., were not in duplicate. A vessel on a foreign station had to cut up and alter what could be got, to "convert" it for her own use, or she was obliged to make for a distant dockyard, or to come to England. The inconvenience and mischief of this were perpetual subjects of complaint in the service, not to speak of the wasteful expenditure it entailed on the country.* To bring order out of this confusion was one of the earliest points to which Captain Symonds directed his attention, as the following communication proves.

Memorandum addressed to the Lords Commissioners of the Admiralty.

"Somerset House, Feb. 17, 1836.

"When I accepted the appointment which I have the honour to hold, in June 1832, I found that there were *eighty-eight* distinct establishments of masts, yards, and sails, for the ships and vessels comprising His Majesty's Navy; and knowing from a long experience, and the just complaints of officers who have commanded and served in fleets and squadrons during the late war, how difficult it has ever been for one ship to supply another, although of the same class, in cases of emergency, and how expensive and inconvenient it has been, both in the home and

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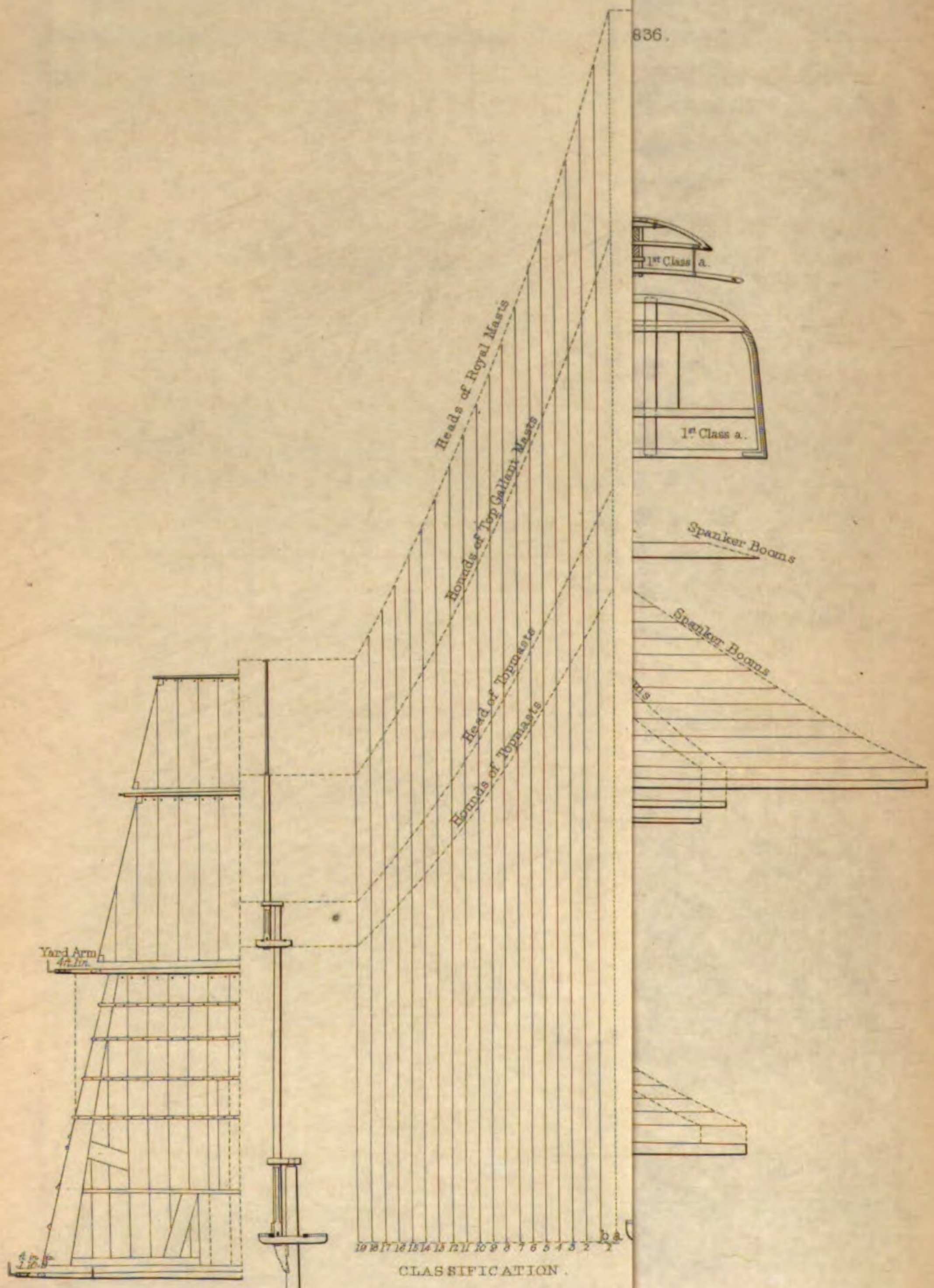
* It is mentioned as a fact, that when Nelson was off Cadiz, with seventeen or eighteen ships of the line, he had not less than "*seven different classes of* 74-*gun ships*, each requiring different spars and gear, so that if one of the batch had been disabled, the others could not have supplied their wants."—*United Service Journal* for 1836.

Sir W. Sym



H. Adlard sc.

foreign yards, to keep up a supply of stores and furniture suitable to so many varying dimensions, I considered that an arrangement might be made, without sacrifice, to effect an uniform classification of the Navy; and I have at length found a scale for *nineteen establishments**, which in consecutive arrangements are so gradual, that all the ships and brigs of every kind, except the old 10-gun brigs and packets, may be raised or lowered in the scale at the will and pleasure of their Lordships, — correcting their displacement by ballast, when there is too much or too little immersion in proportion to the power of canvas applied to move the bodies, which I have no doubt will insure favourable results, and the best economy.

"While I found that there was no general symmetry in the shape of sails, the lofty ones of some classes being smaller or larger in proportion to the topsails and courses than others, it appears from the best authors, that the topsails of the Navy were formerly straight leeched, but that usage had curved the leeches, causing manifest deformity, for the sake of reefing on short yard-arms, which brought stress upon the canvas instead of the leech-rope, occasioning a great loss of spread, a waste of canvas, and an unnecessary length of lower yard. As regards the topsail, it is also the cause of those wrinkles which every sailor must have observed in new sails, as it is impossible that the lining-cloths on the leeches, which are perfectly straight on both edges, can be applied smoothly, and to bear an equal strain on so great a curve as has been produced between the clew and the ear-ring of topsails; which curve is always increasing, because of the extension of the foot by constant sheeting home, and on the head by taut bending and reefing, which is enhanced whenever the canvas is moistened by rain or dew. I have appended a drawing of the Britannia's topsail, which, without stretching at the clews or ear-rings, gives a curve of five feet on each side. The Britannia was the first ship fitted upon the principle which I now advocate, in 1832, and Sir P. Malcolm and others have reported favourably thereon. Since that period ships have been very generally so fitted; but from time to time, some trifling alterations and improvements have been suggested, and those shades of difference may be prospectively corrected when the system is fully adopted.

"For the sake of economy I have taken as a guide, the average dimensions at present in use, leaving the lower-yards as they were, in point of length. The topsail yard-arms have, consequently, been increased in length from 18 inches to 2½

* Finally settled at *twenty*.

feet, which I considered the least expensive mode; as reducing the lower-yards and the head of the courses would have led to a more difficult and less expedient arrangement.

"It will be highly necessary that the rigging warrants should be made conformable to this classification. At present it is so with the store warrants, which are founded upon the fallacy of the old and now obsolete method of measuring tonnage.

"Anchors, cables, boats, and other supplies, are issued disproportionately, from this absurd anomaly; but as the new method is more calculated to ascertain the internal capacity of a merchant vessel than to determine the measured properties of a man-of-war, I would recommend that *Displacement* be considered, in future, the criterion of the size of vessels of war, and that all supplies depending upon magnitude, be, like the classification, comparative with tons of Displacement.

"I recommend that the Superintendents of the several Yards, and the Store-keeper General, be furnished with a full set of books; and that the Master-shipwright, Master-attendant, Master-sailmaker, and foreman of the mast-houses, be furnished with those parts which relate to their departments; causing a careful examination and report to be made, with proposals for any correction or alteration which may be deemed necessary; with directions, that henceforward all ships be fitted out with regard to lengths, until all the converted spars in ships in ordinary and in store are consumed, without regarding a trifling deficiency in the diameters; but that whenever new spars are required, they are made strictly after the dimensions in the classification. All the tops, caps, crosstrees, &c., remaining in store, to be in the like manner reconverted, as near as circumstances will allow, to the shape and dimensions described in the said classification.

"No. 1. Graduated Scale, upon which the classification is founded.

"No. 2. Comprises a set of proportionate drawings of each class of vessel, showing the number of Cloths, the reef-bands, linings, &c., the area of Canvas in the plain sails, with the length of Masts from the deck, the Yards, &c.

"No. 3. Comprises Instructions for making Sails of every description on an uniform system, which has been compiled from a general understanding, by a Committee of the several Master Sailmakers of the Dock-yards.

"No. 4. The Mastmaker's Guide: giving all the dimensions on

Form No. 301, with the ships' names, as I would propose to class them.

"W. SYMONDS,
"Surveyor of the Navy."

His views with regard to Displacement, as affording the most useful criterion of the size of ships of war, are enforced in a Memorandum of a later date.

"With reference to my recommendation on the subject of classification, dated 17th February, 1836, wherein I have stated that 'It will be highly necessary that the rigging-warrants, &c., should be made conformable to this classification, &c. &c.; I would recommend that Displacement be considered, in future, the criterion of the size of vessels of war, and that all supplies depending upon magnitude be, like the classification, comparative with tons of Displacement;' and also my recommendation of 10th July, 1832;—I beg again to call their Lordships' attention to the important subject of determining the size of ships by their Displacement, or by the weight which causes their immersion; and that they will be pleased to furnish me with instructions to give in columns in the dimension books, and other documents where tonnage is now shown, the light and load Displacement of every ship and vessel; for it is obvious that the light Displacement is the criterion expressive of the weight of the shell or hull of the vessel, combining all its material parts, and may most properly be called "the builder's tonnage;" while the load Displacement comprehends the total weight which immerses the body to the load line, expressed on the drawing or plan by the constructor. And the difference between the light and load displacement would describe exactly the aggregate weight of everything taken on board, exclusive of the weight of her shell. And hence the errors in calculation would be detected by the comparisons between the real and the predicted lines of floatation.

The real tonnage of steam-vessels cannot be represented by any other mode than that of displacement, because in the new and in the old modes of calculating "tonnage," the size of the engine-rooms is deducted from the dimensions to be calculated, so that the size of a vessel depends upon the engineer.

Jealous of his success, and of the rewards bestowed upon him for his exertions on behalf of the Naval architecture of his country, the opponents of Captain Symonds

indulged in the most invidious remarks on his ships as they appeared, one after another, or circulated the grossest misrepresentations of their performances. Every trifling drawback was magnified into a fatal error. Even his suggestions for improvements in matters of detail — such as every builder of a new ship is allowed the liberty of proposing — were stigmatised as unwarrantable departures from his own principles, or only as proofs of ignorance and of his inability to foresee the consequences of the alterations he thought fit to make.

He was perhaps more disturbed by the disparaging criticisms of his rivals than was consistent with his firm and decided character. In his Journal, about this time, he complains of the "scandalous attacks upon him in some of the weekly papers;" and the continual efforts made by certain members of the *ci-devant* School of Naval Architecture to "traduce and vilify" him, led on by a divine whose "illiberality was equal to his arrogance and presumption." Another section of his opponents was "headed by the person who saw Bonaparte in the sun." Then there were the "disaffected partisans of the old *régime*" in the Dockyards. But, more than all, he had to fight with a powerful "enemy in the camp, who thwarted and marred many of my attempts for improving the Navy, by specious arguments and cavils, in opposition to my recommendations."

In Committee on the Navy Estimates, 15th April, 1836, Mr. G. F. Young objected to the vote for stores, because he believed there was no responsibility that they would be properly applied. He complained, too, of the lavish expenditure of stores, occasioned by the experiments of Naval architecture now being made by Captain Symonds. He had a great respect for that officer, but he thought that gentlemen brought up to the business of ship-building, were more likely to build ships well than a Naval officer, with whom every vessel he constructed was an experiment. Such a proceeding

was extravagant and monstrous. Captain Symonds claimed to have discovered a new principle of ship-building; for his part he did not believe in its efficacy; but all the old ships would be pulled to pieces to build new ships on Captain Symonds's plan.

Mr. C. Wood defended the vote. Timber was bought sometimes by contract, and sometimes by private bargain, as circumstances dictated; and no more than the fair market price had been given. With respect to Captain Symonds, persons by profession more competent to form an opinion than Mr. Young, had expressed themselves in terms of high commendation on the subject of his experiments in Naval architecture. As to the waste of stores complained of, the fact was, that the quantity of timber required each year had *diminished from* 21,000 *loads* in 1829, to 9000 *loads in* 1834; yet there were more ships at sea in 1834. He denied that Captain Symonds's ships were altered, either during the building, or after they were built. All his ships had been *finished according to the designs* first laid down, while almost all other ships had been altered in the progress of construction.

Admiral Adam, in confirming this, observed that though the Barham did much better than was expected, the Vernon greatly exceeded her in stability.*

Yet, in spite of the opposition which Captain Symonds experienced, he had, as he says, "every reason to be proud" of the reports of the performances of all his ships. The "superior *armament* of the Vanguard over Asia, of Pique over Inconstant, &c.; the *tanks*, *magazines*, and, above all, the *Classification of the Navy*, speak for themselves." This last great improvement has been already adverted to. "My scale for dimensions, and my mode of classifying masts, &c., may be inserted as a frontispiece, if any of my recollections are ever published."

* HANSARD'S *Debates* for 1836.

From the Right Hon. Sir J. Graham, Bart., M. P.

"Grosvenor Place, 14th April, 1836.

"MY DEAR SIR,

"I have read the enclosed with pleasure, but with no surprise; for you know I am so firm a believer that it is very difficult to shake my faith. Your friend, Young, is about to open his attack on you; I hope the Admiralty will defend you honestly: at all events, be prepared with well digested documents to do justice to the real merits of your own case, and you may always rely on my constant friendship.

"Very truly yours,

"J. R. G. GRAHAM.

"Captain Symonds, R. N."

The estimation in which his services were held, and the support he received from the First Lord and his superiors at the Board of Admiralty, were significantly marked, some weeks after, by an announcement, from Lord Minto's private secretary, that the King intended to knight him.

From H. Tufnell, Esq., M. P.

"Admiralty, 13th June, 1836.

"MY DEAR SIR,

"I have much pleasure in enclosing, by Lord Minto's desire, an extract from Sir Herbert Taylor's letter, conveying His Majesty's gracious intention of conferring upon you the honour of knighthood at the next Levée.

His Lordship is convinced you will duly appreciate the flattering manner in which this distinction has been offered; and has assured His Majesty that it cannot fail of proving advantageous to the public service, in the countenance and support which it affords to so able and zealous an officer.

"I remain, my dear Sir,

"Truly yours,

"H. TUFNELL.

"Captain Symonds, R. N."

Extract of a Letter from Sir Herbert Taylor to Lord Minto.

"12th June, 1836.

"His Majesty has ordered me to state to your Lordship, that considering the situation which Captain Symonds holds, the able manner in which he fills it, and the necessity of upholding him

in it, His Majesty conceives your Lordship will concur with him in the propriety of conferring upon him the honour of knighthood, which was given to his predecessor; and His Majesty wishes you would desire him to attend his Levée on Wednesday next, for the purpose of receiving it."

Sir William Symonds was peculiarly gratified by this distinguished mark of his Sovereign's favour. "No officer," says Sir James Graham, in writing to him, a few days after, "no officer deserves it more; and none by his conduct in any circumstances will prove himself more worthy of the confidence reposed in him." He received frequent invitations from the King, both at Brighton and Windsor. In February of the preceding year, 1835, he had been elected a Fellow of the Royal Society.

The following Memorandum refers to the establishment of a Government factory for steam-engines, at one of the Dockyards, in order to lessen the delay which had been hitherto felt in bringing forward steamers for the Navy.

"Admiralty, Somerset House, 27th October, 1836.

"From the increasing importance of steam navigation; the endless delays to which His Majesty's steam-vessels are subjected, owing to a dependence upon private individuals who have manufactured the engines, boilers, and wheels of those vessels,—which, on account of the disputes which frequently occur between them and their workmen, as well as demands upon them which they cannot fulfil, has caused the greatest inconvenience and indeed embarrassment to His Majesty's Service; the necessity for sending His Majesty's steamers to those private establishments and detaching workmen from Woolwich yard to assist in placing the engines and boilers, &c; and the probability that the Post Office steamers will shortly be made over to the Admiralty, which I believe will nearly double the difficulty already experienced; — I am tempted to urge, in the strongest terms, the paramount necessity for forming a Government establishment in some convenient situation, where engines, boilers, wheels, and every thing connected with Steam navigation might be performed without interruption.

"I have very lately inspected an establishment at Deptford,

belonging to the General Steam Navigation Company, which, although labouring under the drawback of inconvenient, confined and straggling premises, and with indifferent arrangements, keeps, as it was stated to me, forty-three steam-vessels in complete action and organisation.

"This establishment consists of two hundred artisans, comprising millwrights, wheelwrights, smiths, founders, shipwrights, joiners, sawyers, riggers, labourers, &c. &c.

"I was informed that a set of boilers might be shifted in nine days, and that when a vessel is in other respects prepared to receive her engines, boilers, &c., they may be fixed and made ready for service in a month, which is far more expeditious than has ever been experienced in preparing steam-vessels for His Majesty's Navy.

"It appears to me that, under every consideration, Deptford is the best situation for such an establishment, as that Dockyard possesses a basin, docks, slips, a smithery, sawpits, and several vacant buildings, which might at an inconsiderable expense be appropriated for the manufacture of engines, boilers, and all the necessary works. The ships might also be advantageously employed for the construction of steam-vessels, when the current works of the establishment did not require all the shipwrights stationed there, necessarily to keep pace with the engineer department, frames being converted at Woolwich for that purpose.

"Drafts from the several yards, of every distinction of workmen necessary, and probably officers, might be immediately furnished on a proportionate scale of each calling, to complete the number required.

"It would then, I presume, prove expedient to *classify* the various engines according to their horse-power, whereby the moulds on the most approved form and principle would furnish castings for all the parts according to the number of classes required consecutively. In which cases, vessels of a similar class might be upon the same station, and in that case, spare gear might apply equally to them all.

"The experience, furnished in the instances of the African and Confiance, convinces me that it is most desirable, both on the score of economy and of convenience, to adopt copper boilers generally, which would, like the engines, be classed, and would of course be made upon the most improved principle and shape, — spare ones being always provided to suit every vessel of each class.

"I understand that the copper boilers now being placed in the Volcano, by Messrs. Seaward, having been made of the best material, of approved solidity, the copper planished and well

wrought, will cost about 5000*l.*: and it is very reasonably presumed that those boilers will last, without removal, a period of nine years.

"Iron boilers, of the same magnitude, cost on an average 1500*l.*; and as three years is considered the period of their duration, they would cost in nine years 4500*l.*

"Copper boilers, at the expiration of nine years, are worth, exclusive of the cost of manufacturing them, from three to four-fifths of their first cost."

This consideration, added to the triennial expense of taking out and putting in iron boilers, disconnecting them from the engines, ripping up the decks, besides the delay caused by the operation of shifting them, and the fact that old iron boilers are almost valueless, tended to confirm Sir W. Symonds's belief in the superiority of copper boilers. They were accordingly adopted in the service. But in place of Deptford, which he recommended for a steam factory, Woolwich was chosen; and separate establishments were afterwards formed on a suitable scale, at Portsmouth, and at Keyham near Devonport. A new Department of Steam Machinery was also constituted at Somerset House, over which Sir Edward Parry was appointed Comptroller, in April, 1837.

From Admiral Sir T. M. Hardy, Bart.

"Greenwich Hospital, November 23rd, 1836.

"My dear Sir William,

"I shall be very happy to talk over with you the merits and demerits of midship magazines. I own that I am partial to them; but if they throw a greater weight into a ship's bows, I should not hesitate, if I thought so, to recommend their removal.

"You have heard my opinion so often, objecting to the heavy guns on the quarter deck of Pique, that it is not necessary for me to repeat it now; but I do not think the Vanguard dealt fairly by, nor will justice be done to her constructor, until she is armed as was intended by the late Board of Admiralty.

"I remain, my dear Sir William,

"Yours, very sincerely,

"T. M. Hardy."

The ships on the Surveyor's lines, built this year, 1836, were the

Carysfort,	26 guns - -	Pembroke,	12th August.
Dido,	18 guns, corvette	„	13th June.
Harlequin,	12 guns, brig -	„	18th March.
Wolverene,	„ - -	Chatham,	13th October.
Bonetta,	3 guns, brig -	Sheerness,	5th April.
Dolphin,	„ -	„	14th June.
Volcano, steamer,	140 h. p.	Portsmouth,	13th June.
Gipsy, tender	- - - -	Sheerness,	April.

The *Carysfort* was a ship of the Vestal class, a few tons less in size. She was 130 ft. long, by 40 ft. beam. Of her superiority over other ships of her class, see Captain Bennet's letter in 1845. Lord G. Paulet, in another letter, states that foreigners were astonished when they came on board, — astonished at her roominess. She was present at the bombardment of Acre.

The *Volcano* steam-vessel was built upon the lines of the Hermes.

The *Dido*, the first of the Surveyor's three beautiful corvettes, was 120 ft. long, by 37 ft. 8 in. beam. She soon showed her character, by weathering everything; though it was reported in the *Hampshire Telegraph*, that she had been beaten by many merchant brigs and schooners. In 1837, her Captain writes how he encountered, while at anchor in Malaga Roads, a furious levanter, such as that which caused the "Tyne to break her bottom nearly out, and the Orestes to carry away her masts. The sea got up so suddenly that I left before the cloth was removed, and was nearly swamped going over the bar, but I succeeded in getting on board. . . . For two days she rode over a sea the most frightful I have ever witnessed at anchor; but the Dido is a most perfect roadster, or she could not have lived through such a sea. . . . The last two hours of the gale, I was repeatedly applied to to run for the mole to save

our lives." He declined, and was saved, while two coasting schooners went all to boards, by getting on the bar outside the mole (March 31st). In 1840–1, Captain H. Davies reports her as quick, but easy, and very weatherly. "In a trial with Castor and Daphne *, close hauled in light moderate breezes, the superiority was in favour of Daphne, evidently from the difference in the spread of canvas." That dashing officer, Captain Hon. H. Keppel †, commanded her on the China station, 1842–5, where she was most actively employed. "After three years and a half in your beautiful Dido, I cannot take leave of her (he says) without writing you a few lines to inform you how delighted I have been with her performances. . . . She is weatherly to an extraordinary degree." As to her stability under canvas, "although we had not a pig of ballast on board, I have known her to go 6 and 7 knots, close hauled, when in my cabin you would not have known from any inclination on which tack we were sailing. . . . Owing to her space and comfort below ‡, the physician of the fleet in China, Dr. Wilson, assured me she was the most healthy ship out there, though I think that our men, during the day, were as much exposed as any ship on the station. We have not fallen in with any sail that we have not beaten in a most extraordinary manner." He concludes with congratulating Sir W. Symonds on having produced a perfect man-of-war, and stating how sorry he was to read in the papers the unfair abuse of a system "for which the whole country ought to be grateful." §

In January, 1832, under Commander F. Moresby,

* Daphne, built by the Surveyor. Castor, by Sir R. Seppings.

† Now Commodore Keppel.

‡ Her depth of hold was 18 feet.

§ See Correspondence for the letter in full. In 1843, the Dido had an affair with the Dyak pirates, when, accompanied by Rajah Brooke, 80 of her crew, in boats, ascended the river 180 miles, in defiance of thousands of the natives.

she discovered the remains of poor Captain A. Gardner the Patagonian missionary, at Picton Island, in Magellan's Strait.

AN 18-GUN CORVETTE.

The *Harlequin*, at first, was armed with 16 32-pounders. She took her name from the Duke of Portland's yacht; but there had been a former Harlequin in the service, broken up in 1829. In November, 1836, she sailed for the Mediterranean in the face of heavy gales which obliged most vessels to put back. Her Commander writes, "During this time the behaviour of the brig was the admiration of everybody on board; lying to, perfectly dry, and so easy, that with our new rigging, fitted in cold and wet weather, she never strained a ropeyarn aloft, nor broke a teacup below." They soon had an opportunity of trying her with Keppel's crack brig, the Childers, "considered by far the fastest sloop in the Mediterranean,

and the general impression seemed to be that we should have no chance with her." A trial followed. "I have since had both the First Lieutenant and Master on board for a passage from Barcelona to Malta; they both declared that we beat her *like a collier*." A few days after they met the Orestes, and "headed her so fast that we took in top-gallant sails, &c. . . . They appeared a good deal annoyed at Barcelona; said it was no credit to beat Orestes, but 'if we *fell in with Childers!*'" (January 30, 1837.) In May, she had a trial with the United States, American frigate. "The Americans say, that she may well be proud of beating them, as the United States is the fastest ship ever built in America." (May 14.) A two days' trial with the Castor was equally decisive; and her Commander adds, "I have never seen her, under canvas, in any weather which would prevent her fighting her guns; and when beating in a heavy head sea, under treble-reefed topsails, and for a short time, close-reefed, she could have fought her guns with perfect ease." (April 10, 1838.)

About the same time the *Wolverene* had a drawn battle with the Castor. She was 100 ft. long, by 32 ft. 4 in. beam; and some tons larger than the old 18's.

Both the *Bonetta* and *Dolphin* were well reported of by their Commanders, for stowage, sailing and other qualities. The little Dolphin, in 1837, beat the Columbine and Waterwitch in a trial on the coast of Africa. She had run with the latter vessel the December before, and weathered upon her in a "most extraordinary degree." "Her guns answer admirably; she does not feel their weight; and she is *a real beauty*, not only in performance, but in looks. . . . She can do other things besides sail, or rather by her sailing; having been so fortunate as to capture a large French built corvette, pierced for 18 guns, with 700 slaves on board." (1st April.) She was 90 ft. 7¾ in. long, by 29 ft. 3½ in.

beam; and 14 ft. 7¾ in. deep in hold. Like her sister ship, the Bonetta, she was decked with cowdri wood, a fine firm New Zealand wood, which stands the tropical heat remarkably well. It also looks well, is harder than fir, and does not wear so much, or split or shake. It is worth remarking that the superior stowage of the Surveyor's small vessels enabled their Commanders to issue to the people *twice the daily allowance of water* which former vessels of the class could supply, when employed in the tropics.

In 1837, Sir W. Symonds began to "copper fasten the top sides of all the new ships." One of his first acts on coming into office, he states, had been to do away with the round sterns of Sir R. Seppings (for which elliptical were substituted), his filling-in system and water-ways, and his "expensive and diagonal riders of timber." Small iron riders were employed instead, at a great saving in the cost; and solid oak was henceforth used in place of the cement mixed with water with which the former Surveyor had been accustomed to "fill in" the open parts of the frame. He would have done much more, he says, but that he was compelled by the contracted views which prevailed with regard to the public expenditure to sacrifice many well-meant improvements.

The trials reported about this time betweeen Rear-Admiral Hayes's Inconstant and the Pique, appeared to place the Surveyor's ship in an unfavourable light (see Correspondence); but the secret of the temporary success of the Inconstant is pointed out in the official explanation, which accompanies the next letter. Here it is clearly shown that the disparity between the two rival ships was occasioned by the position of the Inconstant's magazine, her lighter armament and timbers (making a difference of 150 tons in her favour), and the signal advantage which her constructor had in *fitting out and sailing his own ship.*

From the Right Hon. Sir James Graham, Bart., M.P.

"Netherby, 8th January, 1837.

"MY DEAR SIR WILLIAM,

"I return the copy of your letter to the Admiralty, on the subject of the comparative merits of Pique and Inconstant. It will be prudent in you to omit any expression which can give umbrage in any quarter; and one or two paragraphs in the letter might be improved on reconsideration, and made to convey your meaning more distinctly. But I would on no account advise you to withdraw the statement of one single fact, which you can establish; and it is due to yourself and to your friends, that this statement should be put on record, and exist at the Admiralty in a shape which will allow of a motion to be made for its production in your defence, against the attacks with which your reputation will be assailed.

"I am sorry that the dry rot has appeared in Vernon *; but we always knew that she was built hastily, and we always feared that Lang forced upon you ill-seasoned timber. You remember, also, how anxious the Duke of Portland was, that she should not be sent to the West Indies: he anticipated the evil which has occurred. The responsibility rests in great measure with me and Sir Thomas Hardy, and I shall not shrink from it. Was Vernon filled in on your improved Felt principle †, or was the filling in used by Seppings, under our directions, applied to Vernon?

"*They may carp at you, they may envy you, they may traduce you, but your works will bear the test of time and experience; and no man now builds a ship which is intended to sail faster than a collier without taking a leaf out of your book.* Captain Hayes and all your rivals learnt the real value of beam from you. Let foreigners decide on your merits, if your countrymen will not be just.

"I remain, always with sincere regard,

"Very truly yours,

"J. R. G. GRAHAM."

To the Secretary of the Admiralty.

"Admiralty, Somerset House, 16th January, 1837.

"SIR,

"As there is much discussion on the subject of the late trials between the Vanguard, Inconstant, and Pique; and

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* See p. 167.

† Felt was used between the scarfs of two pieces of timber, and for other purposes.

as many misrepresentations are likely to deceive the public mind on the subject of the two ships; I beg leave, in justice to myself, but more particularly in justice to His Majesty's Service, since other ships are being constructed after the Pique, to lay before my Lords Commissioners of the Admiralty, a statement of facts which will explain the disparity between these ships under the heads as per margin[1], which in the event of any reports on the subject of the trials being called for by Parliament, I would earnestly beg may be appended thereto with the document referred to herein.

	Tons.	cwt.
[1] Pique's armament on quarter deck and forecastle 14 guns of 40 cwt. — Total weight of all the guns, - - - - - - -	103	13
Inconstant.—14 guns of 25 cwt. - - - - - - -	92	16
Difference - - -	10	17

By Memorandum 4th and 19th of May, and 21st June, 1836 —

I represented that there was a deficiency of timber in the frame of the Inconstant; the quantity of timber in the frame of the Castor and Pique being composed of 1208 pieces, whilst that of the Inconstant is 899 pieces, causing a comparative deficiency of $\frac{2}{7}$ths in the frame.

The total displacement of both Inconstant and Pique, as taken from the draft, amounted from 1820 to 1823 tons. The Inconstant swims seven inches lighter than the line of construction, while the Pique is more immersed, upwards of three inches, making a total difference of more than 10 inches; equal to 150 tons of weight in favour of the Inconstant, — both ships being propelled by 20,000 square feet of canvas.

"In constructing the Pique, and her class, I was instructed by the then existing Board to place her magazine amidships, which although against my opinion, appeared a fair experiment. She was then ordered to be armed on the quarter-deck and forecastle with guns of 25 cwt. She was launched in 1834, and on the 10th October following, was ordered to be armed with Bloomfield's guns of 40 cwt. on these decks, at the recommendation of Sir Henry Duncan.

"The same Board of Admiralty ordered two frigates[2] to be built at Portsmouth for trial; the Inconstant by Captain Hayes, the Constance by myself; the order for midship magazines applied to both. There was no slip for the Constance, but the Inconstant had the preference, and was built from drawings which the constructor kept in his own possession, and which were never seen by me until the 6th instant, after the ship was finished, and subsequent to the trial.

[2] Admiralty Order, 12th September, 1833.

"When she was nearly in frame, my attention was called to the circumstance, that she was building very differently

from the custom of the service, as much more than one fourth part of the timber of her frame was sacrificed to give her buoyancy. In a memorandum dated the 19th May last[3], I called their Lordships' attention to the subject, considering that the frames were so far apart that it would be impracticable to plug up shot holes when taking effect between the timbers. I also apprehend that the efficient strength of such a fabric must be at least doubtful. Her constructor[4] was allowed to place his magazine where it exists in all other frigates in the service, and she was armed with 25 cwt. guns on the quarter-deck and forecastle.

[3] See Memorandum 4th and 19th May, and 21st June, 1836.

[4] A. O., 12th January, 1836.

"Captain Hayes had also the advantage of fitting, rigging, storing, and sailing his own ship. I find that the space occupied by the Pique's midship magazine might contain 58 tons of water, instead of only 18 tons of gunpowder; and by changing its position to where it is situated in the Inconstant and other frigates, the coal-hole, containing 34 tons of coals, would be placed in that situation now occupied by two tiers of water-tanks and ten feet further aft; thus the weight would be brought from the extremities into the body of the ship and all the water might be stowed there.

"Although the experiment of placing the magazine of a frigate amidships might have led to an important improvement, I conceive that the result is unfortunate, as it has been gained at the expense of a material disadvantage to the sailing of the Pique. I would therefore recommend its discontinuance in frigates; and that the armament of the Pique, Flora, and other ships building after them, may be reduced to that of the Castor and Inconstant, which will cause a decrease in the weight of the powder and shot, and relieve them from a weight altogether of about 18 tons; and then, if it please their Lordships to institute another trial, I should feel no sort of apprehension about the result for the Pique, although suffering under an immersion caused by more than 100 tons' weight of timber, exceeding that of the Inconstant; provided that the Pique is sailed more on an even keel.

"I would also earnestly recommend that the Vanguard be restored to the armament for which she was originally designed and calculated; which would also relieve her from weight on her superstructure, and give her stability.

"I trust that their Lordships will believe that no unworthy

motive actuates me in thus stating what I consider the King's Service demands at my hands.

"I have the honour to be,

"&c. &c. &c.

"W. SYMONDS."

From the Right Hon. Sir James Graham, Bart., M.P.

"Grosvenor Place, 6th April, 1837.

"MY DEAR SIR WILLIAM,

"The two reports, of which you enclose copies, are as satisfactory as we could desire; and give a distinct contradiction to all the hostile rumours which have been so industriously circulated.

"I am sorry that the Board will not give fair play to Pique*; but rely on it, your character does not now depend on any one ship. Proceed steadily to correct defects, whenever you are satisfied an error has been proved; and in the long run, justice will be done to you, and your enemies will be put to shame.

"I am, always, yours sincerely,

"J. R. G. GRAHAM."

A little while after, one of the Surveyor's friends, Admiral Bouverie, condoles with him:—"I enter into your feelings with all my heart and soul respecting Pique." He laments that the same justice and fair play so properly observed towards Captain Hayes had not been dealt out to him; adding, "you ought (especially after the mortifying and various mishaps which befel Pique while she was last in commission) to have commanded her yourself for the *first* cruise, in company with Inconstant, or to have had a Captain in her who would, *bonâ fide*, have carried your wishes into execution." The cloud upon this fine ship, however, soon blew over; and on various occasions, afterwards, she proved her capabilities to be those of a superior vessel.

* This merely alludes to Sir William's offer to command the Pique during her trials with the Inconstant; which offer was declined, as unnecessary.

He had distributed copies of his proposed Classification of the Navy, for the approval of his friends and others in the service. Sir T. Hardy gave it his sanction, and hoped the Admiralty would adopt his plan. From Sir Charles Ekins, the author of a valuable work on Naval Tactics*, he received this courteous acknowledgment:—

From Admiral Sir C. Ekins.

"Rookland, 22nd June, 1837.

"With your kind note, I had the pleasure to receive the valuable printed inclosures that do so much honour to the skill and talents of the present Surveyor of the Navy. I had no conception, until I read Sir W. Symonds's statement, that the former naval authorities could have suffered the British Navy to extend itself into any thing like the number of *eighty-eight* distinct establishments; but this most extraordinary circumstance must reflect still greater credit on the person who, with so much apparent ease and ability, has so reduced them. I hope and trust that our late irreparable loss† will not lead to changes that may in the smallest degree interfere with or impede the steady progress of the public welfare. You do me justice with regard to my national feelings and scorn of party spirit; this last shows itself in so many hideous forms, and is become so very general, that it is a disgrace to the times in which we live.

"Believe me, very sincerely yours,
"CHARLES EKINS."

This and the following letter, it will be perceived, are from men of the same sterling metal, who could well appreciate the difficulties of Sir W. Symonds's position; men, active and zealous in the discharge of every public duty, always ready to serve their country with simple integrity, and "not to be wearied, not to be overcome," in any difficulty.

* *Naval Battles from* 1744 *to* 1814, *critically reviewed and illustrated.* 1824. Sir Charles commanded the Superb at Algiers. His niece is the present Lady Symonds.

† The death of King William IV., 20th June, 1837, about a month after the Princess Victoria had attained her majority.

*From Admiral F. Warren, Admiral-Superintendent.**

"Devonport Dockyard, 29th August, 1837.

"MY DEAR SYMONDS,

"I was indeed rejoiced to see your handwriting, and trust you will soon be out of the horizontal position. Many thanks for the copies of letters respecting the complete success of the Vanguard. I had heard it all before, yet this corroboration is most gratifying to me and all your friends in this quarter.

"I now begin to see my way, and my troubles daily diminish. The great error in the working of this Dockyard appears to have been the manner in which labour has, by its minute division, been frittered away. I have already, in a great degree, corrected this evil, and I believe we are improving in other minor things; but, had you not removed the *incubus*, I should have made but little progress. Any thing which wants correction do have the kindness to let me know, and I will answer for its being corrected. I feel that I have much to say to you, for the good of the service, whenever we meet; and it will always be most satisfactory to me to avail myself of the advantage of your excellent judgment. With every kind wish that you may soon *be on your legs*,

"I always am, sincerely yours,

"FREDERIC WARREN."†

In the autumn of this year, Sir William Symonds had the misfortune to meet with an accident, which laid him up for some months. He was thrown out of a gig in Bruton Street, and broke his thigh. Through unskilful treatment, the limb was permanently shortened, so that he was obliged to wear a high shoe for the rest of his life. But it never interfered with his agility, to the very last.

His sick bed, however, was greatly cheered by the receipt of a public letter, on 21st October—Trafalgar day—conveying the satisfaction of the Board with his improvements, after the experience they had acquired

* From 1837 to 1841.

† Admiral Warren died 1848. He was the son of George the Third's physician.

of the valuable qualities of his ships; and by the news of his second son's promotion to the rank of Commander, in consequence.

From the Second Secretary of the Admiralty.

"Admiralty, 21st October, 1837.

"SIR,

"The Lords Commissioners of the Admiralty having, from the reports of the various trials, now had experience of the valuable qualities of the several ships which have been constructed by you for Her Majesty's service, I am commanded by their Lordships to express their satisfaction at the improvements which have been introduced by you into Her Majesty's Navy.

"I am, Sir,

"Your very humble servant,

"JOHN BARROW.

"To Captain Sir W. Symonds."

From the First Lord of the Admiralty.

"Admiralty, 21st October, 1837.

"SIR,

"Referring to the very just expression of satisfaction which will be conveyed to you from the Board, I feel much pleasure in announcing to you the promotion of your son, Lieutenant T. M. C. Symonds, to the rank of Commander.

"I have the honour to be, Sir,

"Yours faithfully,

"MINTO.

"Captain Sir William Symonds."

From Admiral Sir Charles Adam.

"Admiralty, 21st October, 1837.

"Saturday night.

"DEAR SYMONDS,

"You will receive, about the time this letter will reach you, an official letter, expressing the satisfaction the Board feel, at the improvement introduced into the Navy by your mode

of construction; and also one from Lord Minto, announcing your son's promotion.

"I assure you this is the cause of sincere gratification to me, and trust it will have the effect of relieving the irksomeness of your bed of suffering.

"I am sorry it will not be in my power to make you a visit, as I intended, to-morrow; but I hope to be able to do so in a few days. I am glad to hear that you are so cheerful, and doing so well. * * *

"I am always glad to hear from you on any subject connected with the department under your direction; and I beg you to believe that I am always

"Truly yours,

"CHAS. ADAM."

Congratulations arrived from his excellent friend Sir T. Hardy. Writing from Greenwich Hospital, on the 26th October, he says: "I am excessively pleased to hear that the Board of Admiralty have at last done you justice; and I congratulate you most sincerely on the promotion of your son. I am truly sorry," he adds, "to hear you do not advance more rapidly towards recovery. Your mind now is at ease, and you must give up business for a time."

From the Right Hon. Sir James Graham, Bart., M.P.

"Netherby, 28th October, 1837.

"MY DEAR SIR WILLIAM,

"I had fully intended to write to you for the purpose of inquiring how your recovery advanced after your severe accident, when this morning I was gratified by the receipt of a letter from your own hand, from which I am willing to hope that you are doing well.

I am truly glad that your merits are now duly appreciated in the highest quarter, and trust that prejudice has begun to yield to proof and experience. I have never doubted that, by patience, you would triumph; and the malignity of your enemies will only serve to fix public attention on your success. *Do not be ashamed to correct any imperfections which may be demonstrated to your own satisfaction, and go on improving;* recollecting always the responsible duties of your high office, which call on you to

furnish the means of our national defence; and remember that *you build* for *posterity as well as for the present day*, and that your fair fame is at stake. No passing wound to vanity, no triumph of the moment, is to be compared to this; and if you steadily persevere, your permanent reputation will be established on a rock. I can never cease to feel a deep interest in your success, and I cordially congratulate you on the just tribute to your merits in the promotion of your son.

"Hoping when I next see you in London to find you perfectly recovered,

"I remain always, with sincere regard,

"My dear Sir William, very truly yours,

"J. R. G. GRAHAM.

"To Captain Sir William Symonds, R. N."

Sir William's eldest son, William Cornwallis (born 1st Aug. 1810), after having served ten years in the army in India, came home a lieutenant, and entered as a senior cadet at Sandhurst. He finished his studies there, in November of this year, obtaining a first-rate certificate (signed by the Duke of Cambridge, in token of special approval), as the fruit of great and honourable application. One specimen of his skill was an excellent survey of a part of the country between St. Albans and Newbury; in the course of which he traced an ancient Roman road. His father says: "I was at this period a member of an association for the colonization of New Zealand, and my son was invited to undertake the situation of surveyor-general to the company; but dissension among the members soon stopped proceedings, and it died a natural death. My son was still determined to employ his talents for the benefit of science, in order to discover the resources of New Zealand in regard to geography, geology, mineralogy, &c., and he gained my consent and assistance for the attainment of this object. Having got his company by purchase, at my expense, he was appointed to the 96th regiment at Sydney. I supplied him with the means of purchasing a great quantity of such things as are used

to barter with the natives; and in June 1839 he sailed to Australia and New Zealand." But in a few years he came to an untimely end. After making the tour of the island with Governor Grey, this meritorious officer was unfortunately drowned, 23rd Nov., 1842, to the grief of all who knew him, in Manaka Bay (since called Symonds' Bay), which he attempted to cross in a mere cockle shell, during a storm, to visit a sick friend. It is supposed that a shark seized him. He was a fine young man, upwards of six feet high.

Sir William's third son, Anthony (born Dec. 4th 1813), was a cadet at the Royal Military Academy Woolwich; and in 1849, when Major of Engineers (and the youngest officer of that rank in the service), was appointed Chief Resident at Cephalonia, on which occasion he was saluted, in due style, by his brother, Captain T. M. C. Symonds, who then commanded the Spartan. For this post he was well qualified, since he was a remarkably clever linguist, speaking French, Italian, German, Spanish, Modern Greek, and Arabic. He died prematurely 1852. John Jermyn, the Surveyor's youngest son, who was educated at Oxford, is a lieutenant in the army. He was secretary to Captain R. Fitzroy when Governor of New Zealand, and is now settled in that island, in charge of pensioners there.

This year, 1837, the following vessels of the Surveyor's were launched:—

Lily,	12 guns, brig - -	- Pembroke,	28 Sept.
Sappho,	„ - - -	- Plymouth,	Feb.
Gorgon,	steam-vessel, 320 h.p.	- Pembroke,	31 Aug.
Megæra	„ 140 h.p.	- Sheerness,	17 Aug.
Dasher,	„ 100 h.p.	- Chatham,	Dec.
Widgeon,	„ 90 h.p.	- Chatham,	12 Sept.
Mercury, tender	- - -	- Chatham,	7 Feb.

The *Lily* was at first armed with 16 guns, all 32-pounders, except two 9's. Commander J. Reeve, who

had her from 1837 to 1839, on the coast of Africa, praises her good qualities, and reports that she "beat the Pylades one mile per hour in the run from St. Helena to Ascension." In 1838, she had a trial cruise with the Modeste (built by Admiral Elliot). The result was, that "Modeste has no chance whatever, in a wind, with the Lily, nor do I think her much superior before it. Even in our present trim, we are 3 inches too much by the stern; and next trial I hope to be able to say that on all points we beat Modeste." (25th March, 1838.) On one occasion she captured a slaver with twenty or thirty blacks on board, whom she took to Mauritius, where they form a little colony, all bearing the name of "Lily," in memory of their happy deliverance.

The *Sappho* was launched in March. Length, 100 ft. 6 in.; beam, 32 ft. 4 in. Her Commander writes, in 1837, from Port Royal, after a trial with an opponent "worthy to be pitted against her," the Champion (built by Captain Hayes). At the end of it, "we shortened sail and telegraphed to the Champion, 'Acknowledge yourself beaten!' The answer was, 'Terribly!' as indeed it was, we being six miles dead in the wind's eye of her. . . . It is only for me to add, that I joined the Sappho unprejudiced. . . . I expected to find her a fast vessel, certainly, but also a most uneasy one. . . . I did not at first attempt to have a cot in my cabin, fearing that my head would be pitched through the aft bulkhead, and my feet through the fore one. A cruise in the Gulf of St. Lawrence has long since convinced me of the fallacy of my original impressions. . . . No vessel can strain her rigging less; and if it be objected to her that she is wet, my answer is this: If in a head sea, by carrying a press of sail, you drive a vessel through the green seas, some of the spray must find its way on board; but reduce the sail, lay her

to, and she bows and walks over the seas in the easiest and most beautiful style." (28th Nov., 1837.) Her "witch-like pranks" are afterwards spoken of.

The *Gorgon*, the first of the Surveyor's steam frigates, meant both to sail and steam, was launched just before the Cyclops, and was 178 ft. long, by 37 ft. 6½ in. beam. Space had been left for engines of 220-horse power and 200 tons of coal; but she actually received engines of 350-horse power, and coals in proportion; and was so much deeper in consequence. Her timbers were of teak, her main beams of hard African oak; the whole secured by copper bolts and iron knees and riders. The bulkheads of her cabins were of South American cedar, taken out of the Gibraltar's hull. She was armed with 16 32-pounders. Her qualities were misrepresented from the first. She carried, it was said, 150 tons of coal less than she ought; when in truth she had in boxes 180 more than any other vessel, or 380 tons altogether. On the north coast of Spain, in 1838–9, while protecting the Spanish Legion, she beat the Phœnix by four hours, in a run of 80 miles. Captain S. C. Dacres describes her to be a remarkably easy, very weatherly, well built, and strong ship, possessing every good quality. Her greatest speed was 11 knots.*

On the 10th May, 1844, a *pampero*, or fierce hurricane (which stranded 14 other vessels), parted her chain cable and drove her ashore in Monte Video Bay, where she was left high and dry. It took five months to get her off; but she was recovered, without harm to herself, by the persevering exertions of her Captain and ship's company.†

The *Megæra*, a steam-vessel of 717 tons, was lost 4th

* A sailor, looking out for a ship, read this one's name, on a placard, first forwards and then backwards, "Gorg-on — No grog." "Oh," said he, "she won't do for me."

† See a *Narrative* by her First Lieutenant, now Captain A. C. Key. 1847.

March, 1843, in Portland Bay, Jamaica. A larger one, of iron, was built, 1849, by Messrs. Fairbairn.

Such was the unhappy mania for reduction at this period, that for two or three successive years not a *single* line of battle ship was launched; though *three* per year, at least, are considered, on a fair average, as necessary to keep up the strength of the Navy. It was the universal complaint of the Captains that their ships were undermanned.* By this false economy, the country, it was said, was actually "living on its capital;" and even before Sir T. Hardy left the Admiralty, he had complained that the reduced estimates were "ruining the Navy."

* In 1834 *no liners* were built; in 1836, *none;* in 1837 *none;* in in 1838, *none,* As to the supply of seamen, on the "Peace Establishment" of 1837, for example, the complements for classes of first-rates were 790, 750, 670; against 1,000, 950, 850, in 1847. Other rates were as low in proportion. So that in 1837, while 189 ships on various stations had 26,654 men; in 1847, 266 ships carried 38,850 men; or ten men more, per ship, on the average.

CHAP. VI.

1838–9.

VISIT TO DUNKELD. — BUILDING OF THE DAPHNE, ACORN, GRECIAN, MEDUSA, HYDRA, ETC. — DEFENCE OF THE CHANNEL ISLANDS. — TRIP TO THE BALTIC. — BUILDING OF THE QUEEN, FANTOME CYCLOPS, VESUVIUS, STROMBOLI, ETC.

From Admiral Warren, Admiral-Superintendent.

"Plymouth Dockyard, January 25th, 1838.

"MY DEAR SYMONDS,

"Nothing can be more agreeable to me than to receive your wishes and sentiments on anything and everything connected with this Dockyard. It will always give me great satisfaction *to pull in the same boat with you;* but I have neither talents nor abilities to pull the *stroke oar;* yet I may be of some use.

We have fearful proofs of the deterioration of the copper for sheathing. I think it must arise from the frequent re-manufacturing. I should like to see the sheathing for the bottom made of one half old copper and one half new. If this mixture proved to be more durable than that of the re-manufactured old it might give us some light on the subject. After having, at so great an expense, rendered Plymouth Sound a safe and commodious anchorage, it appears to me quite absurd that Plymouth Dockyard should not be made a perfect dockyard; and the first step should be to obviate the evils which arise from its being a lee shore for many months in the year, which is to be done by making a basin in which you may have shears. I am as great an advocate as you can be for lower masts being put in dry, and I shall rejoice to see shears on a wharf. I do not find any prejudice here against

having shears, but we must have a jetty for the purpose. The Master-Attendant's jetty could not be so appropriated without crippling us in the fitting out of large ships. Nothing appears to have been done to make a dam to keep the tide off the ships building, and I have this day brought it before the Admiralty for their consideration. I am rejoiced to hear that you are relieved from splints and bandages, and now look forward with pleasure to see you, 'yourself again.'

"I always am, with sincere regard,

"Yours faithfully,

"FRED. WARREN."

The first ship coppered in the British Navy was the Alarm, in 1758. In 1783, every ship was ordered to be sheathed with copper. It was calculated, before it came into general use, that in *seven* years 66 men-of-war, with 11,000 hands on board, had been lost, through the corrosion of the iron nails by the salt water. Still more to prevent this corrosion and fouling, Sir H. Davy in 1824 was allowed to try his plan of galvanic coppering, on the bottom of the Samarang, at Portsmouth. To make the copper electro-negative, six protector bars of iron were laid on it; two amidships on the keel, two on the bows, two on the stern. But this experiment of the great chemist was not successful; and in 1828 they were removed. Though the copper was kept sound, it was soon fouled with barnacles and sea-weed.* The Boscawen's bottom was defended on the same plan.

An official report having been sent in to the Surveyor, from the Master Shipwrights, on the condition of the

* Something of the kind was known to the Romans. Trajan's galley, when discovered in Lake Riccio, was found to be sheathed with pitch, and lead put on with copper nails. Sheet lead was used by Sir R. Howard in the Duke of York's time (1675), *inside* a thin deal planking. When the Dreadnought (pulled to pieces this year, 1857) was launched at Portsmouth, 13th June, 1801, after being thirteen years on the stocks, she was coppered in the short space of *six hours*. This took place on Sunday, and she went out of harbour the next day. — N.B. A signal had been made that a French fleet was in sight.

Inconstant, and shown to Sir T. Hardy, that gallant officer writes on 2nd March, 1838: "I return the papers which you left, and very curious documents they are. I hope that Mr. J. Edye will contrive to let the Rear-Admiral (Hayes) see the list of Inconstant's defects." * The more serious faults in her construction had been pointed out in an earlier report from Messrs. Blake, Aylen, and W. Edye, dated 20th June, 1836.

From Capt. Sir E. Lyons, Bart., Ambassador to Greece.

Athens, 8th April, 1838.

"My dear Symonds,

"Whilst I was under the impression that your fracture was going on badly, I had not the heart to congratulate you upon Tom's promotion, and upon the gratifying way in which it was done; but now I hear that you are all right, I do, with all my heart, wish you and Tom joy. May *you* go on building as splendid ships, and may *he* soon have the command of one of them. I do not believe there ever was a ship built which gave such general satisfaction as the Vanguard.

"Pray remember me most kindly to Lady Symonds, and with Lady Lyons' best wishes to you and yours,

"Believe me, yours faithfully,

"Edmund Lyons. †

"To Captain Sir W. Symonds, R. N."

On the 21st June this year, Captain Lord Ingestre, in the House of Commons, carried a motion for papers relating to the School of Naval Architecture, with a view of procuring its revival. He also advocated the formation of a board for advising on experiments relating to nautical subjects. This, however, was no new idea; for as early as 1832, when Sir W. Symonds first came into office, he suggested the appointment of a

* See letter, 21st July, 1838, in Correspondence, under "Pique."

† Now, Admiral Lord Lyons, Commander-in-Chief in the Mediterranean.

Naval Committee for taking into consideration the merits of any invention or model brought before them, and to decide whether it should be adopted or not.*

From the Right Hon. Sir James Graham, Bart., M.P.

"Grosvenor Place, 20th July, 1838.

"My dear Sir William,

"I continue to feel the most lively interest in your success, and the most perfect confidence that time and experience will establish your fame on a rock, from which envy cannot remove it. I don't know whether it is desirable that a motion should be made for the production of these documents, that full publicity may be given to them. I doubt it; since, while the Admiralty supports you, you can laugh to scorn the puny attacks of your enemies. If you wish it, however, I will speak to Mr. Wood, and ask for the production of the returns.

"I hope you are recovered from your sad accident, and

"I remain always, with sincere regard,

"Very faithfully yours,

"J. R. G. Graham.

"Captain Sir W. Symonds, R.N."

During the summer recess, Sir William visited the Duke of Athol's Highland plantations, for the purpose of ascertaining their capabilities of supplying timber for the Navy. The result of his examination is contained in the following extract from his Journal:

"Dunkeld, Sept. 1838.

"This place is situated among hills which are covered with useful timber. The Tay is a beautiful river running through the valley south of the town, over which there is a substantial and handsome bridge of six arches. The town is small, but has tolerable inns, in which the traveller finds clean beds and comfortable fare.

"The 'Duke's Arms' is close to the river, the sound of which is soothing and agreeable, and not loud enough to create disturbance. The inhabitants are cleanly and respectable, and appear to be thriving.

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* *Ev.* of Mr. Edye, before *Committee on Navy Estimates*, 1847-8.

"On approaching the town from the Loch and Kenmore on what is called the Taymouth road — which for the whole distance, 24 miles, is a gradual descent — you wind through picturesque and well-wooded valley scenery varied in its character, and the lovely Tay accompanies you the whole distance.

"The Duke of Athol is the proprietor of Dunkeld, and possesses 200,000 acres, principally north of Dunkeld, to the northern boundary of Perthshire. The late duke, John, lived in a mere shooting-box when at Dunkeld; but, before his death, commenced building a princely mansion, which is at present little higher than the lower story, and appears to be at a stand, as the walls were covered over and guarded against the weather. The plain upon which this house is built is in a low situation, and is about four miles long, on the north bank of the Tay; and has three terraces, on which are gravelled walks, and also green ones by the side of the stream. On its verge, and intermediately, are stately larches, silver firs, and pines; there are also some tolerable oaks, chestnuts, ashes, limes, planes, &c.

"Great Britain owes much to Duke John, and something to his ancestor, for introducing the larch on a large scale. A German, in the life of Duke James, is said to have brought over some plants in his portmanteau. Three were planted at Dunkeld, and the others were given to General Campbell, of Crief, which have been growing more than a hundred years. Two are still standing at Dunkeld, of large size, and more than a hundred feet high. These results made it evident that the soil and climate were favourable to the growth of larch, and a large plantation was made thirty years afterwards, which furnished the timber of which the *Athol* frigate was built at the earnest intercession of the last duke, John, in 1819. His predecessor had planted about 6,000 acres, but he liberally diffused them over every hill that he could find plants for, and covered altogether a space of 15,000 acres with this fine useful timber. The consequence of this will be an incalculable pecuniary advantage to his Grace's posterity, and a glorious monument to himself, in producing such solid benefit to the naval resources of the empire. The soil appears admirably adapted to this species of Alpine tree, which in a given time outgrows the *pinus sylvestris* and other firs, and the property derives the greatest advantage from the improvement it occasions to the land; for the tree being deciduous, the yearly fall produces pasture where none before existed. I was informed that land, valued at *two* shillings per acre when the plantations were made, in thirty years had become worth *twenty-two shillings* per acre! Indeed, I saw cattle browsing under

the larch trees, apparently preferring the grass there to that which grew in open places.

"I observed two beautiful specimens of hemlock spruces, one of them more than six feet in circumference, and in the highest luxuriance of verdure. There is also a fine specimen of *arbor vitæ*, which has grown to a respectable timber-tree, unlike the shrubs which one is accustomed to see. I saw a fine magnolia, a promising Chili pine; and the rhododendron is so abundant as to be a weed.

"On Craig Vignon, the larches are from fifty to sixty years old, but will require twenty or thirty years more, at least, to fit them for Naval purposes, even for steamers or small vessels. On Craigie Barnes the upper portion of the larches are fifty years old, the lower part about sixteen; in fact they are planted in regular succession, and thinning out is now the order of the day. This is highly necessary, as they are covered with moss where thinning has not commenced.

"The two large remaining trees near the house at Dunkeld are 109 years old. At two feet from the ground they measure nineteen feet in circumference, and at a height of four feet, fifteen feet in circumference; at the height of fifty feet, they are said to be six feet in circumference. Some of the larch trees which are said to be of seventy years' growth, and which were allowed to remain when the fall took place, for the purpose of building the Athol*, are said to be 115 feet high, being much higher than the two original trees before mentioned, which are somewhat more than 100 feet high. They are all growing, it appears to me, on too low a situation to produce good timber.

"In the walk to the Hermitage there are several very stately trees of larch and the veritable Scotch Fir (*pinus sylvestris*), the former of seventy years' standing, the latter of 132 years' growth; but the larch is the tallest tree. The Hermitage hangs over a cascade, and having mirrors placed obliquely, the fall is reflected multifold, and has an agreeable effect."

This year, 1838, the following vessels were launched by the Surveyor: —

Daphne,	18 guns, corvette	Pembroke, 6th Aug.
Acorn,	12 guns, brig -	Devonport, 15th Nov.
Grecian	,, - -	Pembroke, 24th April.
Pilot	,, - -	Devonport, June.

* The Athol, a frigate of 503 tons, though built as far back as 1820, is still afloat as a troop-ship; a proof of the soundness of larch timber.

Penguin, 6 guns, packet	Pembroke, 10th April.
Petrel, „ - -	„ 23rd May.
Medusa, steamer, 312 h.p.	„ 31st Aug.
Merlin, „ - -	„ 18th Sept.
Hydra, „ 220 h.p. -	Chatham, July.
Acheron „ 170 h.p. -	Sheerness, 23rd Aug.

The *Daphne* was a corvette of the Dido class, 8 tons smaller, carrying 18 32-pounders on a flush deck. Captain J. W. Dalling, between 1838 and 1842, describes her as having sailed in company with the Hastings and Espoir. "In the forenoon of Wednesday (8th May, 1839), we wore and stood to the N.E. On this tack we met a very nasty head sea, and wetted Madam Daphne's face considerably; but we did not appear to pitch more than the liner (Hastings) or the brig; and we went down as easy as a pendulum, maintained our weatherly qualities quite as much, and nearly so our fore-reaching, as we could always spare the Hastings either main course or jib and spanker. I found out that she likes the two latter sails most, and springs under them *like a race-horse to the spur.*" On the passage from Gibraltar to Malta, in March 1842, she beat the Prebles, an American corvette, considered one of the fastest ships in their navy.

The *Acorn** (now in China) was armed with 16 32-pounders at first, and went to the African station. On her way out, her captain (Commander J. Adams) says, they met a French 20-gun brig, "which we sailed round and round." Between the Cape and Isle of France, with a very heavy gale aft, a tremendous sea, and run of 10 days, she never shipped a single drop of water. A slaver she took told them she was considered the fastest vessel out of Rio. In the five years she was on this station she captured an immense number of slavers;

* A former Acorn, by Sir R. Seppings, foundered on the North American station.

one being the Gabriel, a noted brig. A trial with the Modeste was short, "but we had the advantage on all points." Her working was quite perfect. "She will stay as fast as the men can go from brace to brace." As to her capacity, "We stow now six months' provisions of every kind, and 50 tons of water: not a thing on either deck." In 1841, in a trial, she ran away from both Brisk and Waterwitch.

The *Grecian*, like the Acorn, was armed with 16 guns, and pronounced by her Commander, W. Smyth, as a particularly easy and weatherly ship, beating everything she sailed with, as soon as she got to her station, Rio Janeiro. "In a head sea, she dances over it, buoyant as a cork. I assure you Grecian is the talk of all the naval characters here, and the *dread of the slavers*," of whom she took four in a few months. (11th Feb. 1839.)

Of the *Pilot*, the accounts were equally satisfactory. "Coming from England to Bermuda (says her Commander), I had the most dreadful weather; and had the Pilot not been a first-rate one, I should never have got out of Biscay Bay. I have sailed against everything, 22 in. by the stern, 14 ft. 4 in. draught; and, at any time, a *child might steer her*." The most infamous reports had been circulated of this beautiful brig. Length, 105 ft.; 33 ft. beam; 15 ft. deep in the hold.

The *Acheron* was a fine steamer, built for packet service. In 1850, she was cruising on the coast of New Holland. For the behaviour of the *Merlin* in a storm, see Captain H. Robinson's account in a letter, January 1840, to be found in the Correspondence.

The *Penguin*, according to one Parliamentary return, was put together in the yard of White of Cowes.

The publication of the Duke of Wellington's letter on the national defences about this time, led Sir. W. Symonds to appeal once more to the authorities, on the unprotected state of the Channel Islands. To this end, he addressed the Home Secretary, Lord J. Russell, send-

ing copies of his former letters to the Lord High Admiral and the Governor of Jersey in 1828 and 1831.* On a visit to Jersey in the autumn of 1838, he found, he said, the chief merchants and proprietors full of apprehension. The French Government were creating large basins at St. Malo for ships of war and steamers, as well as merchant vessels. In case of war, they might, by a simultaneous movement of steamers with troops on board from Brest, Morlaix, St. Malo, Cherbourg, &c., overpower the islanders, who lay at their mercy; and the loss would be incalculable. Attempts had been made at a cost of 120,000*l.* to repair and enlarge the old dry harbour of St. Helier; but Bouley Bay, he considered, would be a more important post, as well for defence as a harbour of refuge for packets, oyster-boats, &c. A rough breakwater, for which granite could be dug on the spot, would give shelter to large ships of war. It is on the lee side of the island. It possesses excellent holding ground, clear of rocks, sands, and other dangers; anchorage in 3 to 10 fathoms at the lowest tide; and an open navigation;—so that it can be entered in the darkest night. It is the refuge for steam packets to St. Helier, when unable to go round the Corbière; and according to the testimony of the late Lord de Saumarez, and the practice of Lord Howe and others, it is the only spot calculated to anchor a squadron in safety among the islands. Two useless batteries, untenable because commanded by the heights behind, had been constructed.

Sir W. Symonds submitted his views to the Duke of Wellington, whose reply contains the pith of the whole matter.

From His Grace the Duke of Wellington.

"London, 2nd Feb., 1839.

"SIR, — I had the honour of receiving your letter and enclosures of the 28th ultimo. There is no man more strongly

* See pages 75-79.

impressed than I am with a sense of the importance of the Channel Islands to this nation, and of the necessity of taking effectual measures to provide for their defence in war, while we shall have leisure to consider of them, and the means to execute those measures afforded by the existence of peace.

"The future danger of the Channel Islands consists in this. The application of steam to navigation has already made such progress, as that the operations of *maritime* war are rendered nearly certain.

"Heretofore an expedition from the coast of France to attack any of these Islands, however well planned, and the details, however well executed, could not be certain of reaching and disembarking at the point of attack designed. The rise and fall of the tides are so great and the currents so strong, and the Islands themselves so much exposed to the severity of the gales from the westward, that there could be no certainty; and such attacks have *uniformly* failed.

"But by the aid of steam, the arrival of fleets of men-of-war and transports at any point, at any time, must be certain, and each of these islands must be left to its own means of defence, and stand the attack of the enemy.

"It becomes the duty of the Government, therefore, to attend in time to all the means which can be adopted for their defence.

"From what I have above stated, you will see that I feel a strong interest on the subject referred to in the papers enclosed in your letter.

"I have the honour to be, Sir,
"Your most obedient, humble Servant,
"WELLINGTON."

"To Captain Sir William Symonds, &c. &c."

He sent copies of his letters to various official quarters; and in 1840 endeavoured to move the Lords of the Admiralty to pay the Islands a visit.

To Admiral Sir Charles Adam.

"23rd June, 1840.

"MY DEAR SIR CHARLES ADAM,

"I trust that you have had time to peruse the letters which are in Lord Minto's private office, containing the

correspondence relative to the defenceless state of these Islands, and the suggestion as to forming a Breakwater by means of convicts, to enable steamers and other ships of war to lay afloat in a safe clear anchorage. At this moment, the merchants and others of this island are weak enough to ask the assistance and consent of the Government to increase the Pier at St. Helier, although they know that it is throwing £150,000 into the sea, with a mere possibility that it may prove a temporary accommodation to the commercial shipping during peace, when all know it will prove a dead weight to the land proprietors in time of war; besides which, it is on the lee side of a bay, and if such a sum is to be laid out, there cannot be a doubt that it should be expended on the St. Aubyn's side.* I trust that the Home Office or the Council, if the circumstance is referred thither, will pause before they consent; for it is an insult to the human understanding, and will be a lasting disgrace to those who have planned such an extravagance.

"I wish that I could persuade the Board to look at Bouley Bay, and to take a cursory view of the points in question regarding the mercantile ports. It would be scarcely out of the way in going from Portsmouth to Plymouth. I have beds sufficient, and all might be done in a day or two; and really this Island is worth seeing. Perhaps you will be so kind as to enlighten Mr. Fox Maule on the subject of the port of St. Helier, which deserves much consideration.

"I am, always, your very faithful servant,

"W. S."

"Jersey, 17th July, 1840."

After this he went to the expense of a plan for defending Bouley Bay and its neighbourhood, made by his son Anthony. The estimate was calculated at about 30,000*l.*, if convict labour were used. Being appointed by the States their deputy to press the consideration of the measure upon the attention of the Government, he once more wrote to the Duke of Wellington in 1842, who replied that he felt an "anxious interest in the strength and security of the Islands," and would do all in his power to promote the beneficial public object which they both had in view.

* This is fit only for a dry harbour, having no water for large ships, or holding ground.

When applied to by Sir John de Veulle, Bailiff of Jersey, Sir Robert Peel, then Premier, stated that on account of the numerous proposals for constructing harbours, he did not feel justified in giving an assurance that one would be made for Jersey. At a later date, St. Catherine's, a watering place on the east side, was fixed on, at the recommendation of Sir James Gordon, in spite of the opinion of the most competent judges, that Bouley Bay, on the north side, offered by far the best shelter in tempestuous weather, and afforded great facilities for watching an enemy. However, after ground had been bought, stone dug, and preparations made for the breakwater, St. Catherine's Bay was deserted *, when half a million had been sunk; and a Channel harbour of refuge on a costly scale was begun at Alderney, which is still in progress of enlargement, after more than three-quarters of a million of money has been spent upon it.

In June, 1839, Sir W. Symonds, accompanied by Lady Symonds, made an excursion through Germany

* "We, the undersigned, having very recently visited the Island of Jersey, and having minutely inspected the Bays of Bouley and St. Catherine, and having observed with much surprise that the latter has been selected as a site for a harbour of safety and defence, and to give shelter to vessels of war, and having observed that extensive works are being carried on, we deem it our duty to the public to express, in the strongest terms, our conviction and testimony that a spot less calculated than St. Catherine's could not have been chosen; as it is evident, from the survey of Captain Martin White, that there is not space for such a work, and that the whole Bay is so surrounded with rocks and sand-banks, as to render its ingress and egress at all times dangerous, and in dark nights and fogs nearly impossible, even for steamers. We have drawn a comparison between Bouley Bay and St. Catherine's Bay, and we feel convinced that the former is in all respects preferable, from its clear approach and extensive anchoring-ground. We have appended a statement of that comparison, and we recommend the works commenced at St. Catherine's Bay to be abandoned, as a most useless and expensive project.

(Signed) "W. SYMONDS, Captain R. N., Surveyor of the "Navy, Deputy to the States of Jersey.

"CHARLES EKINS, Admiral.

"Swanage, 7th August, 1847."

and the north of Europe to St. Petersburg and Finland, returning home through Sweden, Denmark, and Holstein. A pretty full account of this journey may be gathered from a Remark Book in which he inserted his professional notes, and from a little work styled "Holiday Trips," — a bundle of irregular rhymes put together, as he says, in extempore doggrel, on the road, for the private amusement of his friends, and dedicated to his niece, Mrs. Frederick West.

Sir William's professional *Remarks* on the navies of the Baltic powers begin at Cronstadt. Though his statistical summaries of their comparative force may be a little out of date, at this time, yet they are historically useful. His account of the Russian navy in particular, as he surveyed it with the eye of an experienced seaman, is not without interest even now; while some of his anticipations of that ambitious power have been verified by later events.

"EXTRACT FROM MY REMARK BOOK.

"BALTIC, 1839.

"On Wednesday, the 24th of July, 1839, about three or four o'clock p.m., saw Cronstadt, and observed that the Russian fleet, composed of eighteen sail of the line, nine frigates, two corvettes, five brigs, one schooner, two cutters, and two luggers, was drawn up in a line of battle a-head; the ships being at anchor about a cable's length and a half apart, and the line extending from W.S.W. to E.N.E. About half-past three the steamer was stopped to receive the guard boat of a frigate lying some distance to the westward of the fleet, which gave me an opportunity to make a strict examination of the whole. Afterwards, we proceeded leisurely to Cronstadt, when I made the following observations on the armament of each ship in the line successively, commencing at the van, viz.: —

Ships of the Line.	Gun Deck.	Middle Deck.	Main Deck.	Upper Deck.		Guns.
1	14	—	14	10	... ...	76
2 R. S.*	16	—	16	14	Flag at mizen	92
3 R. S.	16	—	16	15	... ...	94
4 Sir R. S.	15	—	15	13	... ...	86
5 Ugly	15	16	16	13	... ...	120
6 Old	14	—	15	13	... ...	84
7 Old	14	—	15	13	... ...	84
8	15	—	16	16	Flag at mizen	94
9	14	—	15	13	... ...	84
10	16	—	16	15	... ...	94
11 R. S.	16	—	16	14	Flag at mizen	92
12 R. S.	14	—	15	13	... ...	84
13	14	—	15	13	... ...	84
14 R. S.	16	16	16	15	Flag at mizen	126
15 R. S.	14	—	15	13	... ...	84
16 Old	14	—	15	13	... ...	84
17 Handsome ...	15	—	16	15	Flag at mizen	92
18 Old	14	—	15	12	Flag at mizen	82

These guns are exclusive of poop guns.

	Main Deck.	Upper Deck.	Guns.
Frigates:			
1	15	15	60
2	15	14	58
3	16	14	60
4	15	13	56
5	15	13	56
6	15	13	56
7	14	14	56
8 Razée	14	13	54
9	15	14	58
Corvettes:			
1	15	...	30
2	9	...	18
Brigs:			
1	9	...	18
2	9	...	18
3	10	...	20
4	10	...	20
5	10	...	20
Schooner:			
1	8	...	16
Cutters:			
1	6	...	12
2	6	...	12
Luggers:			
1	6	...	12
2	6	...	12

* R. S. means Round Stern.

"I had ample time to observe the numbers and rates of those vessels laid up in a state of readiness, with their lower masts in, lower riggings overhead, and temporarily housed, with boarding and canvas, viz.: —

Ships of the Line.	Gun Deck.	Middle Deck.	Main Deck.	Upper Deck.	Guns.
1	16	16	16	14	124
2	15	...	16	10	82
3	15	...	16	10	82
4	14	...	15	10	78
5	14	...	15	10	78
6	14	...	15	10	78
7	14	...	15	10	78
8	14	...	15	10	78
9	14	...	15	10	78

"Five double banked frigates, from 56 to 60 guns. One three-masted steamer, gunned similar to our own war-steamers. One two-masted steamer, with a tier of broadside guns. Three 78-gun ships, under repair in dock. One corvette, 18 guns, ditto. One new three-decker, 128 guns, being placed on camels in the Neva. One new frigate, 58 guns, in the basin at Cronstadt. Three transports, in the basin at Cronstadt. One 84-gun ship, building at Octa Dockyard. Two 80-gun ships, building at New Admiralty Dockyard. Two new frigates, 60 guns, building at Old Admiralty Dockyard.

"Also one frigate, 36 guns, at Revel, in commission. Three 20-gun brigs, and a small steamer at Hangoud. One 18 and one 10-gun brig, at Helsingfors.

"On proceeding the next morning to St. Petersburg, I passed a new first-rate, pierced for 128 guns, The Russia, 206 feet long, 57 feet broad. This ship is framed and planked with Russian oak, a wood of quick growth, open grained, and not durable, the bottom plank excepted, which, with the beams, all formed from single pieces of timber, are of larch. She is fastened upon Seppings's plan, with heavy diagonal riders, the shelf-pieces inside the clamps, the beams iron-kneed over immense chocks; and is considered to be altogether built of heavy materials, as she immerses more than was originally intended, drawing above nineteen feet water when perfectly light. She has five ports on each bow, so far forward as to allow them to be fired right a-head. Her stern is elliptic, but would not allow the quarter-guns to be fired at an angle of 45 deg. from the straight line of the keel.

"It is intended to get this ship over the Bar of the Neva by means of *camels*, which are immense hollow pontoons, flat bottomed, straight on one side, the other hollowed out to receive the bilge of the ship; their total depth about twenty-one feet. When required, they are sufficiently sunk to be brought close round the object to be borne; then levelled with each other, well lashed at either end, and secured also by means of successive hawsers passed transversely under the keel, made fast alternately to one camel, and hove taut to the other by means of winches: which with the pumps, ninety-three in number, on each, are on the outer gunwales of the camels. They are then pumped out, and while bearing the ship, which is lifted bodily eleven feet, they draw between eight and nine feet water only; but previous to that operation, huge beams are fixed on each lower deck port, which being well spurred and propped, they and the ship are shored, wherever it is possible to fix one on the camels. I learnt that, in all cases, ships suffer more or less from this operation; it is a great test of strength.

"A note from our Ambassador, the Marquis of Clanricarde, determined me to remain at St. Petersburg another week:—

"'Lord Clanricarde presents his compliments to Sir William Symonds, and has to inform him that the Emperor has expressed his desire to see Sir William on Sunday next; and, as far as Lord Clanricarde can learn, the fleet off Cronstadt will be under sail, and will manœuvre on Thursday and Friday next; and, although these days, and that fixed by the Emperor to receive Sir William, are beyond the period at which Sir William Symonds wished to leave St. Petersburg, Lord Clanricarde thinks it so important that the present opportunity of gaining, for Her Majesty's good, a safe, dispassionate, and most able opinion upon the condition and character of the Russian fleet, and upon the progress of nautical science in this country, should not be lost, that he takes the liberty of strongly urging Sir William to postpone his departure for a week. Lord Clanricarde also thinks it would not be well that so distinguished an officer of the British Navy should avoid a conversation with the Emperor, who will probably desire to talk with him on matters connected with his profession.

"'Michaelofsky, 17-29th July, 1839.'

"Saturday, 3rd August, I embarked, at a quarter-past seven, a.m., in a Government steamer, Prince Menschikoff, the Minister of Marine's tender, accompanied by Count Demidoff, Admiral Ricord, and Lieut.-Colonel Grinwald. We reached Cronstadt in two or three hours, and commenced with examining

a large steam-boat, said to be like the Nile, the vessel built in England for the Pasha of Egypt.

"Entering the largest of the basins, used for the men-of-war, we rowed up to the head of it, got into three carriages which had been placed at our disposal, and proceeded to look at Peter the Great's long canal, and the docks at the upper extremity of it. They are a good deal out of repair, and are too narrow to receive line-of-battle ships of the present day.

"We examined the large new dock, which is 63 feet wide at the gates, 280 feet long. It is beautifully constructed of fine Finland granite; and they do not disguise that it is for the purpose of increasing the breadth of their ships. The caisson is after a Dutch plan, and is formed to fit a double groove. Preparation is making to form also a new frigate dock near it, and a canal is about to be extended to communicate with that of Peter the Great, in conjunction with the new docks. They have also very sensibly made a canal all round the dockyard, which being always filled, vessels, in the absence of tide, have the facility of discharging their cargoes near the magazines or *wheresoever* it is convenient to deposit them.

"We saw a good plan of Cronstadt, which includes the late improvements. It is curious to observe that the principal street, having a gate at the end of it, is exactly in the direction of the entrance to the Neva and to St. Petersburgh; and serves in winter as the port to this extraordinary fortress and arsenal. Stores, provisions, and persons are transported on sledges upon the ice from one place to the other in that season.

"There are two other basins, besides that before-mentioned, for the reception of men-of-war; and there is also a basin for merchant vessels, which, being of all nations, are so numerous, that they look like a forest.

"I understand that there is a depth of 25 feet water in the basins for men-of-war.

"The division of the Russian fleet laid up in a state of demonstration, consists of one old three-decker, two 80-gun ships, without poops, six old ships of 78 guns—two of which appear to have been recently put into a state of good repair, and are new coppered; the other four are evidently out of repair, and are indifferent ships. The five frigates, which are also in the basin, and dismantled, are all double banked, and appear in a very good state, as handsome, fine frigates.

"All the guns, shot, masts, yards, spars, anchors, cables, &c. &c., are upon the wharfs near their respective ships, and all of them appear to be ready for any immediate temporary service.

"A fine brig, of 20 guns, and seven gun-boats are in the

middle basin; a fine new frigate, just out of dock and fresh coppered, appeared ready for masting.

"We visited Peter the Great's cottage, the late Naval College for Cadets, now appropriated to the education of youths intended for masters and pilots for the Russian navy.

"In front of the building there is the model of the superstruction of a corvette on a large scale, completely rigged, sails bent, guns and everything complete, for the exercise of the students.

"I was shown the public rooms, library, ball-rooms, &c., which are maintained by a trifling subscription from all naval officers; it appears a good institution. A curious map of Pekin in China, on a large scale, was hanging up in the library.

"We were surprised at the extent of the ground upon which this establishment stands, and felt that, in any other country, it would be ruinous to keep the works in repair, which are founded on piles, the ground being everywhere soft.

"Notwithstanding the vaunted strength of the fortress of Cronstadt, and the general opinion that it is impregnable, I am strongly of opinion that, at a well chosen moment, with vessels suitable to offensive operations against it, it might be taken possession of for a time sufficient to destroy the naval force under its protection; since the guns, for the most part, are in such a situation that the men would be open to assault, although there is a battery on each side of the entrance to Cronstadt, possessing stone-work for the protection of the gunners.

"The batteries do not appear to have recovered the effect of the inundation, which took place in November, 1824. Some of the walls are now under repair, being restored and improved. They are all liable to be breached by the periodical swells of the river.

"On our return from Cronstadt to St. Petersburg, I was conducted to the new Naval College for Cadets, under Admiral Kreuzenstern, and was indeed astonished at the magnitude and good arrangement of the establishment. It must have the effect of training scientific officers for the Russian navy, as nothing appears wanting to give them a perfect understanding in everything theoretical and practical, connected with the profession. A small steam-engine at work is constantly before them; with the model of a frigate, for taking to pieces and reconstructing; a mould loft; and every facility for acquiring the art of naval construction. There were also many objects for experiments in galvanism, and other branches of chemistry; and an ingenious table for the purpose of obtaining the art of manœuvring ships and fleets. The pupils, 650 in number, are

all boarded and lodged in this admirable institution. At this period they were in the gulf, working and manœuvring some small frigates and brigs built for the purpose.

"Prince Menschikoff, who is Lord High Admiral, was at sea with the two divisions of the Russian fleet during the performance of the sham fight, and other evolutions, in the presence of the Emperor. He had appointed Mr. Grinwald, who ranks with a lieutenant-colonel in the army, at present master shipwright to the Admiralty Dockyard, formerly a student in Portsmouth yard, to show me everything that I desired.

"This gentleman was constant in his attention and kindness during my stay at St. Petersburg, and I have to thank him for much assistance also in a private way. He showed me all the public offices in the Admiralty,—the board-room, library, the scientific departments for chemical, hydraulic, and hydrostatic experiments. The Hydrographical Office is on a stupendous scale, and much attention appears to be lavished on it. Surveying instruments appear to be in great abundance, and a great many students are here instructed in that science. Charts, prepared in manuscript, are actually engraved and lithographed in the department.

"There is an immense printing establishment within the walls of the Admiralty—an immense room being full of presses on the best and most recent plans. It is all under Menschikoff, assisted by Admiral Vasilia, who is a sort of comptroller of the navy, and Admiral Kobyakow, who is one of the board, and also treasurer. They ordered everything to be shown, and every explanation to be given me. In the eastern dockyard, which is enclosed by the walls of the Admiralty, Colonel Grinwald is building two frigates, after a French plan, of larch, similar to many of the double banked frigates now in the service. In the western arsenal of the Admiralty, or new dockyard, there are two excellent building slips, one of solid masonry, with an iron roof. From this slip the Russia, of 128 guns, was lately launched. It is said to be 206 feet long, and 62 feet wide in the arch. The principal mould loft here is 220 feet long, by 78 feet broad; there are two others of rather smaller dimensions.

"General Popoff's drawing-rooms and model-rooms are in high order, neatly and judiciously arranged. He is the principal Russian constructor, and the author of the Russia beforementioned. In the model-rooms we saw a variety of interesting matter; the plan of the docks at Sebastopol, in the Black Sea, —three for line-of-battle ships, and two for frigates; and the drawing of a frigate, made under the immediate personal auspices and direction of Peter the Great.

"There is another dockyard about four miles up the river, called Octa, or Ochta; much out of repair, and chiefly used for building new vessels. Here we saw the frame of an 80-gun ship in the act of being converted from larch timber; this ship, and the two 80's laying down in the New Admiralty yard, are said to be similar to the Champenoisse, after the plan of Chapman, sent to Russia by Dr. Inman. Her load displacement is 3,283 tons; she has a round ugly stern, and is diagonally fastened; and sails tolerably, though not so well as the Empress and her class, which have handsome elliptic sterns. The larch timber is derived from Archangel, and is of large dimensions, but they appear to have no great store at St. Petersburg.

"On Thursday, 8th August, we left Cronstadt in the Storfursten, Stockholm steamer, about noon.

"One division of the Russian squadron had returned from the cruise of evolution in the presence of the Emperor, and had begun to dismantle; four or five ships of the line being already in the basin, partly stripped; the others preparing to follow. They all appeared in the same good order that I had before observed; their masts standing well, and not showing any sign of accident or disaster from the short service on which they had been employed. This division had been exercising in the Gulf of Finland previous to my arrival from Lubeck; the other division having taken their place, I expected to see them before reaching Helsingfors.

"Lord Anglesey had departed the evening before us; we passed him on Thursday evening on our way to Revel, and at the same time saw two frigates and a brig, cruising off Hogland. We had a beautiful passage, and arrived at Revel at eight on Friday morning.

"This town is built upon a hill, having three conspicuous towers on it, and two or three more of a smaller description. It is fortified with double lines, and has gates on each line, which appear ancient, and not in good repair. There is a mole for men-of-war, which bristles with heavy cannon. Its whole extent is formed of timber, similar to the mole and many of the forts at Cronstadt, and not affording any shelter to the men who work the guns. It is defended by an island, having a blockhouse on it formed of stone-work, in which the gunners would be sheltered.

"The Russian squadron, composed of nine sail of the line, two frigates, a corvette, two brigs, and a schooner, were lying in this roadstead; in the mole there was a small frigate, with two brigs, and four transports.

"As soon as we arrived at Revel, I despatched a note to Count Heyden, the Russian Admiral, who sent his son with an invitation to dine; and at two a boat and carriage were ready for our use. We met the officers of the fleet at his table, and experienced a friendly and affable reception from the Count.

"Leaving Revel at eight on Saturday morning, we found the squadron in the act of getting under way, composed of one three-decker and eight two-decked ships of the line, three frigates and a brig; their sails stood tolerably, having straight leeches; but they were very long in stowing their anchors. I saw three flags at the mizen, one on a three-decker, one on a fine 80-gun ship, and one, which I took to be the Commander-in-Chief's, on board a frigate. They had all carronades on their gangways; and the line-of-battle ships had two Paixhan guns, of a side, on their lower deck.

"At half-past twelve, having lost sight of the Russian squadron, we saw the church of Helsingfors, which stands above the islands in front of it. At two o'clock we got alongside of the wharf at Helsingfors, passing close to the cluster of islands upon which the fortification of Sweaborg is situated.* There is an observatory, a senate-house, an University, and several large buildings; the place is evidently improving, and becoming of importance, being now the capital of Finland. All the country round it is barren, as it lies on a bed of granite, with stunted fir trees (*Pinus sylvestris*), and the juniper growing in the fissures. The lakes about it, and the estuaries from the gulf are pretty, and there are a few country-houses in the neighbourhood. The inhabitants appear a quiet, clean race of people.

"A man-of-war brig was the guard vessel, and two transports were lying in this excellent port.

"Sunday morning, left Helsingfors, and commenced a traverse through innumerable islands, covered with fir trees, a brush-wood of stunted juniper, growing thickly among rocks of granite. These islands form canals, some of great length, perfectly land-locked and sheltered from the effect of Baltic gales. There are a few habitations on the greater part of them, which appear to be the abode of fishermen, as many boats were visible in the little creeks and harbours—some of which were occupied in carrying large parties of men and women to church.

"About half-way between Helsingfors and the fortress of

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* Sweaborg or Sveaborg, bombarded by the Allied Fleets 10th August, 1855.

Hangoud, we passed a Russian gun-brig, the guard vessel; and at half-past four the anchorage of Hangoud. It appears a large and secure receptacle for a fleet, defended by three batteries on rocks.

"Two brigs of war, a steamer, and two dredging-machines, were lying in the inner harbour, and one brig of war in the outer harbour.

"The small village of Hangoud stands just above the inner harbour. It is evident that this vast Archipelago of islands is under a particular course of survey, as innumerable beacons and distinguishing marks were upon every islet and rock in our tortuous course. Tents were seen upon one of the islands.

"About half-past six, we discovered a ship-building establishment near the entrance of Abo; two fine new merchant ships were nearly ready for sea. We soon perceived the old castle, the observatory, and many scattered houses in the environs of the town; at length we reached the entrance of a canal formed by rows of piles, closely placed together, with a strong spar above to bind them. At the termination of this artificial work, after passing the old castle, on our left, the town and the river upon which it stands opened to our view. The approach is so contracted that the wave caused by the steamer's wheels created a little disturbance and damage to the numerous boats on its margin.

"A little after seven we found ourselves snugly fast to the wharf at Abo; and, on landing, we walked up to the observatory, and took a general view of the town and vicinity.

"On Monday, breakfasted on shore, took a carriage and explored the neighbourhood, sketched the old castle, &c. The land affords scarcely any cultivation, and is like Helsingfors, surrounded by beds of granite, stunted firs, and juniper; indeed, all the soil of Finland that we have seen appears ungrateful, wild, and almost in a state of nature. At three o'clock, departed, and continued to thread the mazes of countless islands; then, after passing an opening about 20 miles across, we found safe anchorage for the night in a bay formed by rocks and islands, and observed a few houses upon the nearest group, contiguous to Aland. Our vessel was covered with musquitoes.

"Soon after leaving, in the morning at daylight, we passed about 20 miles outside the citadel of Bomarsund,* and soon

* Destroyed by the Allied Fleets 13th August, 1854.

found ourselves in the open sea, having a strong breeze and some swell. Early in the forenoon we were hailed by the first Swedish station, which, it appears, is merely a salutary precaution.

"From this moment the scenery began to improve. We passed close to the fortress of Waxholm, which is a large circular tower, and, with another which we saw more to the southward, is the principal defence of the main channel leading to the beautiful approach to Stockholm. Not far from Waxholm a 36-gun frigate, razée, an 18-gun corvette, and a 10-gun schooner, were lying at anchor.

"The descriptions of the first appearance of Stockholm, seated among lakes and wooded hills, are by no means overdrawn, but the charts which I have seen are incorrect, and give no idea of the entrance to this capital. It appears very defensible, and with a certain number of war steamers, and the numerous gun-boats which Sweden already possesses, she might, with trained men, defy invasion.

"About three o'clock, we reached the pier under the palace; then called upon Sir John Ross, the Consul*, and left a despatch from Lord Clanricarde, at the house of the British Minister, Sir Thomas Cartwright.

"From the top of St. Catherine's church and from the observatory, we had a full view of the magnificent situation and beauty of Stockholm. The next day I saw Sir Thomas Cartwright, who appeared much disappointed at finding my stay so short, and would fain have persuaded me to relinquish my plan, and to accompany Sir Henry Wynn, who was to sail a week afterwards, by a different route, to Copenhagen. He considered that I might render much service to Sweden by remaining until the Prince Royal returned from the country to Stockholm; as he and the Minister for Foreign Affairs desired to consult me on the subject of constructing vessels for the defence of Sweden against the growing power of Russia. He read me a statement that he had sent to the British Government on the subject of her naval strength, enumerating the vessels of different kinds and descriptions which at present compose its navy. It appears that no more than ten sail of the line are in existence, several of them built in the year 1785, one in the year 1805, and more very recently. They are building one new 80-gun ship; they have about ten frigates

* The arctic voyager, who died 1856.

of too small a size and too ancient a fabric to compete with frigates of the present day.

"One frigate belongs also to a Norwegian division, which, with a few sloops-of-war, a schooner, and about two hundred gun-boats distributed between Stockholm, Carlskrona, and Norway, constitutes all their maritime force.

"He told me that, 'When the Marquis of Anglesey, observing to the Emperor of Russia that such a fleet as his, kept in such good order and condition, must be an enormous expense, inquired for what purpose they were maintained, he replied, "As a check upon the naval power of Sweden;" but, in a subsequent conversation, he very justly confessed that the naval power of Sweden amounts to nothing.' How is this inconsistency to be explained?

"The Minister then informed me that the pitiful sum of 100,000*l.* per annum was all that the Diet allotted for the total naval expenditure.

"I learnt that a new basin is being formed at Carlskrona. He then conducted me to the naval arsenal at Stockholm, and with some difficulty gained admittance; for it is pretended that no stranger can enter it without the King's permission; but Admiral Nordenskjold, who had charge of the naval department, with Captain Konger and Captain Von Sydow, showed me the gun-boats with the new ordnance used in them, with all that was worth seeing in the yard, which amounted to very little. The gun-boats appear to be taken care of, and many new ones are under construction to keep up the numbers; some are under repair, others having their armament in complete readiness for service. They seem to understand gun-boat defence particularly well. The largest of them carry a heavy gun forward, which discharges a 70 lb. shot, a 24 lb. gun abaft, and at each bow and quarter a small patteraso, for the purpose of discharging bags of musket balls. The after gun is fitted with wheels, and is calculated for the use of field operations, and may be landed, by a very ingenious method, upon gang-boards adapted to the purpose. The contrivances on board for every contingency are excellent; their ingenious mode of boating and securing the bow guns under hatches in bad weather, was explained to me; and I also saw a new kind of double roller for prising up the train of a gun to facilitate its running out. I had much conversation with the Admiral and Captains, who were exceedingly attentive and intelligent, speaking English well. The Admiral had been formerly in the English navy.

"I dined with a party at Sir T. Cartwright's. The Minister for Foreign Affairs, Baron de Stjemald, was there. I sat between him and Sir Henry Wynn, and had much interesting conversation with both, upon the relative political situation of Sweden and Denmark with Russia, and on the state of their navies; the preponderating force of the latter, its extraordinary policy, cunning diplomacy, and unaccountable general conduct. They both repeated their regret at my temporary stay, hoping that I should return to Sweden next year and see Carlskrona; and spoke of the disappointment the Prince Royal would feel, on his return from the country, at my premature departure. The Baron was shortly called away by a message from the King; having been educated in England, he speaks the language like a native.

"Sir Henry Wynn said he had written to the Secretary of Legation, Mr. Brown, at Copenhagen, desiring him to show me the naval arsenal and ships of Denmark. He talked of the spirit of the Danes in naval preparation, and of the apathy of the Swedes; making comparisons unfavourable to the latter, and its present Government, under the King's adviser, Count Brahe, who, it was inferred, is a friend to Russia. The monarch being merely a military man is unfit, from age and ignorance of financial and commercial matters, to give Sweden the advantages which she ought to derive from her commanding situation in the Baltic, and her internal resources; especially in the productions of Norway. That country, so rich in timber, mines, and a long line of sea coast, has nearly 30,000 seamen, who are brought up as fishermen, pilots in boats, and coasters; while Sweden, giving little encouragement to nautical enterprise, produces an insignificant number, hardly fit for the service of her gun-boats. But even the gun-boats have been long under cover; no crews are attached to them, and they are consequently unexercised. Denmark's ships and gun-boats are in high order, but from the loss of Norway she has not the means of manning them.

"There appears to be a fatality in favour of Russia, and against the power of these two fine kingdoms, which, united, might bid defiance to the Czar, and keep him in constant and complete check. The export of tar is much diminished since the loss of Finland; still, much is brought to Stockholm from Norland, but a greater quantity is exported from thence. Swedish iron still holds its reputation. The gun-boats are framed with oak grown in Sweden; they are planked with fir, *Pinus sylvestris*, which seems to be the indigenous tree of this

country; although, near the capital, we see the spruce fir also, and a variety of deciduous forest trees.

"When the party dispersed, I was closeted with Sir T. Cartwright, who took down in writing my opinion as to the nature of the naval armament which I considered best adapted to the service of the Baltic. I recommended them to build, for every line-of-battle ship, three war steamers instead, which I deemed might be obtained at a less cost; and from their power of motion, heavy guns, light draft of water, &c., would, in conjunction with gun-boats, prove a strong arm of power.

"He expressed his full intention, as a political measure, to recommend our Government to build a pattern vessel of this description as a present to Sweden.

"On Wednesday, the 14th of August, we left Stockholm in the Thomas Telford steamer, and proceeded through the Gotha canal*, which appears deservedly an object of the greatest interest and consideration to the Swedish Government, as it enables them to send merchandise, munitions of war, stores, &c., to Gottenburg, avoiding the difficulties and expense of going through the Sound—an advantage which in time of war would be most important. Its docks are being altered and enlarged to admit steamers and other vessels of greater dimensions. There is a rise and a descent of at least 300 feet, and the *trajet* is performed in five days without difficulty or hindrance.

"We arrived at Gottenburg on Monday the 19th. The canal appears to have a very beneficial effect upon the commerce of this town, which is in a state of improvement, and is capable of becoming a place of greater importance. With its canals in every street it looks as if made by Dutchmen.

"Embarked for Copenhagen on Wednesday the 21st, and passed Elsinore (which put us in mind of Shakspeare) on Thursday morning, at the same time that a Russian ship of 74 guns ran through the Sound to the Baltic, having probably been repaired at Archangel, as she is one of their old ships.

"A Danish corvette was lying guard ship at Elsinore. We arrived at Copenhagen about ten o'clock; I counted four ships of the line of 80 guns, and one of 66 in the basin; and observed that another 80 and a frigate were nearly ready to be launched. Denmark possesses also seven frigates, five corvettes, three schooners, three cutters, and sixty-seven gun-boats and mortar-boats. They are said to be in good condition, but are all of

* Now partly superseded by a railway.

small dimensions compared to the ships of the present day in other countries.

"In the evening, leaving Copenhagen, we passed over the spot on which Nelson fought the battle of Copenhagen, on my way to Kiel, which I reached at two the next afternoon. It stands at the head of an excellent, spacious, and secure harbour, fit to contain a very large fleet of men-of-war.

"The strength of each naval power in the Baltic stands as follows:—

RUSSIA.

	No.
Effective Ships of the line	28
New First-rate of 128 guns	1
In a forward state of repair	3
Building	3
Liners	35

SWEDEN.

	No.
Ships of the line of various sizes and conditions	10
Building	1
Liners	11

DENMARK.

	No.
Ships of the line; one only of 66 guns in an effective state ...	5
Building	1
Liners	6

"This allows that the frigates are in equal proportion, which is not the fact, for it is not dissembled that Russia has to every line-of-battle ship a frigate and a sloop, forming so many distinct brigades, under the captains of each of those line-of-battle ships.

"Sweden and Denmark possess together about 267 gunboats, mortar-boats, &c. Russia has two large war-steamers: they have none.

"The reason alleged for Russia keeping up such a preponderating disparity of force is, forsooth, 'The naval power of Sweden,'—a ridiculous pretext; and it is evident that the

A LIST OF THE SHIPS OF THE DANISH NAVY, 6TH OCTOBER, 1838.

	Ship's Name.	Guns.	Calibre of long Guns.	War Complement.	Length from Stem to Stern.	Breadth of Beam.	Draught of Water when fully equipped. Aft.	Draught of Water when fully equipped. Fore.	Where built.	Builder.	When launched.	Where stationed, and other Remarks.
					Ft. In.	Ft. In.	Ft. In.	Ft. In.				
SIX LINERS.	Drouning Maria	84	30	771	180 10	46 0	20 9	19 3	Copenhagen	Schifter	16 Sept. 1824	At Copenhagen.
	Waldemar	84	30	771	180 10	46 0	20 9	19 3	Do.	Do.	14 Aug. 1828	Do.
	Frederick VI...	84	30	771	180 10	46 0	20 9	19 3	Do.	Do.	25 Aug. 1831	Do., will probably be put in com-
	Skiold	84	30	771	180 10	46 0	20 9	19 3	Do.	Do.	Sept. 1833	Do. [mission next year.
	Danmark	66	24	696	170 9	44 3	20 3	19 0	Do.	Hohlenberg	29 July, 1817	Do.
	Phœnix	58	...	...	... ...	... ...	... ...	... ...	Do.	Stibolt	... ...	Do., cut down to a hulk.
	Pr. Christian Frederick	84	30	...	... ...	... ...	... ...	... ...	Do.	Schifter	... ...	Now building at Copenhagen.
SEVEN FRIGATES.	Freia	46	18	404	155 3	37 9	17 2½	15 11½	Copenhagen	Schifter	6 Aug. 1819	At Copenhagen.
	Havfruen	46	18	404	155 3	37 9	17 2½	15 11½	Do.	Do.	26 Oct. 1825	Do.
	Rota...	46	18	404	155 3	37 9	17 2½	15 11½	Do.	Do.	31 July, 1822	Do., lately returned from Mediter-
	Bellona	46	18	404	155 3	37 9	17 2½	15 11½	Do.	Do.	15 Sept. 1830	Do. [ranean.
	Nymphen	40	18	322	143 6	36 6	15 10	14 10	Do.	Hohlenberg	18 Oct. 1815	Do.
	Fylla...	40	18	322	143 6	36 6	15 10	14 10	Do.	Do.	17 July, 1816	Do.
	Thetis	48	18	...	... ...	... ...	... ...	... ...	Do.	Schifter	... ...	Now building at Copenhagen.
FIVE CORVETTES.	Galathea...	26	18	216	140 0	... ...	15 0	13 6	Copenhagen	Schifter	1831	At Copenhagen.
	Naiadia	20	18	130	119 6	29 3	13 11½	12 5½	Do.	Do.	26 May, 1820	Do.
	Diana	20	18	130	119 6	29 3	13 11½	12 5½	Do.	Do.	28 May, 1823	Guard-ship at Elsinore.
	Fortuna	20	18	130	119 6	29 3	13 11½	12 5½	Do.	Do.	14 June, 1825	At Copenhagen.
	Flora	20	18	130	119 6	29 3	13 11½	12 5½	Do.	Do.	15 July, 1826	Cadet-ship for exercising Midshipmen.
FIVE BRIGS.	Möen	18	18	99	99 8	28 6	12 4	11 6	Copenhagen	Phil	22 Nov. 1815	Cut up.
	St. Thomas	16	18	91	101 4	26 9	13 2	11 8	Do.	Schifter	26 June, 1827	At Copenhagen, lately returned from
	St. Ian	12	18	68	92 3	24 0	11 11¾	10 1¾	Do.	Do.	6 June, 1821	Do. [West Indies.
	Alant	12	18	68	92 3	24 0	11 11¾	10 1¾	Do.	Do.	1832	In the Danish West Indies.
	St. Croix...	12	18	68	92 3	24 0	11 11¾	10 1¾	Do.	Do.	28 July, 1819	Do.
	Mercurius	12	18	68	92 3	24 0	11 11¾	10 1¾	Do.	Do.	May, 1837	At Copenhagen.
THREE SCHOONERS.	Elbe	8	...	...	... ...	... ...	... ...	... ...	Copenhagen	Schifter	1831	Guard-ship in the Elbe, at Altona.
	Delphinen	6	...	...	... ...	... ...	... ...	... ...	Do.	Do.	1832	Do. at Nyborg.
	Pilen...	6	...	...	... ...	... ...	... ...	... ...	Do.	Do.	1832	At Copenhagen.
THREE CUTTERS.	Elsinore	...	...	...	... ...	... ...	... ...	... ...	Elsinore.	Löve	... ...	Surveying vessel.
	Maagen	...	...	...	... ...	... ...	... ...	... ...	Do.	Do.	... ...	Do.
	Sachen	...	...	...	... ...	... ...	... ...	... ...	Do.	Do.	... ...	Do.

The Row Flotilla consists of 58 large Gun-boats, 6 smaller ditto, and 3 Boats carrying Mortars.

motive for such an expensive armament does not lie within the Baltic.

"It may be argued that nothing is to be apprehended while Russia has no really practical sailors brought up to the profession. This argument may hold good in the Atlantic, where better sailors are required to manage them in storms, and to preserve them. I saw the crews of several of her vessels, and witnessed some of their manœuvres, which were by no means bad. In physical strength I should say that their men have an advantage over ours, but they have not the activity, and are certainly in want of practice; yet they are brave, willing, and obedient, and would, I believe, under common circumstances, be found tough antagonists.

"As far as appearance goes, I never saw 28 sail of the line in better order—there is a systematic arrangement throughout the whole; and there must be some master-mind to direct and to keep them in such good condition.

"Although they have guns in their gangways (frigates and all), they, none of them, appeared to be too much immersed, but were all sitting buoyantly on the water, with no more weight than they could bear, and preserving their proper line of flotation.

"Their rigging looked remarkably well—snug about the mast-heads; also well turned in: the masts standing particularly well. They were, in every respect, clean, well painted, and in man-of-war-like order; nor did I ever see an equal number of British men-of-war look so uniformly trim. The persevering pains which the Emperor bestows upon all the institutions and the active departments of the Navy, will make them as perfect as *theory without practice* can do.

"I could not help making comparisons, which established in my mind our great inferiority in several points. But at the same time it must be admitted that there is a great deal of humbug and finesse in all this Russian demonstration—the institutions for the basis of a navy being already on too large a scale, and sufficient for all the navies in the known world. In fact, the numberless clerks dressed in uniform—the immense rooms dedicated to naval affairs, compared with what is actually doing in the arsenals, is ridiculous, but it keeps an immense corps of officers employed.

"Building ships at St. Petersburg is another absurdity, as well as the process of carrying them over the bar of the Neva on camels; which is done to amuse the good citizens of St. Petersburg, and to make more apparent the seeming difficulty

for an offensive force to approach the city. There would be no difficulty in making a canal sufficiently deep, if it suited the opinions of the Emperor, who appeared to waive the subject, when I spoke of this absurdity.

"The old three-deckers, three in number, are unwieldy ships, and not good sailers. The Russia is a great improvement upon them, but serious mistakes have been committed with regard to her, and it is impossible that she can sail well; yet she is as good as our three-deckers, with three feet more beam. She could not go into any of our old docks. The new 80-gun ships are of two classes and are very handsome ships, about the size of the Canopus and the Christian the 7th.

"The old 74's are not equal to our small ships, though several have been renewed, and others repaired. It was stated to me that they make it a point of building three new ships of the line per annum, to keep up their numbers.

"The uniformity in their appearance (from one general system being observed) is admirable. While it must simplify their demands, and make them less expensive, it need not prevent improvement.

"I have not said anything of the division in the Black Sea, which is considered one third of their force.

"Distance travelled in this excursion:—

	Miles.		Miles.
London to Hamburg	464	Travemunde to Cronstadt...	700
Hamburg to Berlin	200	Cronstadt to Petersburg ...	16
Berlin to Dresden	150	Petersburg to Cronstadt ...	16
Dresden to Toplitz	50	Cronstadt to Revel	200
Toplitz to Prague	70	Revel to Helsingfors.....	70
Prague to Toplitz	70	Helsingfors to Abo	160
Toplitz to Tetschen	16	Abo to Stockholm.....	240
Tetschen to the Biler Ground	12	Stockholm to Gottenburg	275
Return	12	Gottenburg to Copenhagen	153
Tetschen to Schandau	25	Copenhagen to Kiel	175
In Saxon Switzerland	18	Kiel to Hamburg	80
Schandau to Dresden	20	Hamburg to London	464
Dresden to Leipsick.....	75	Excursions from Toplitz, Petersburg, &c. &c.	200
Leipsick to Magdeburg ...	75		
Magdeburg to Schwerin ...	130		2749
Schwerin to Lubeck	40		1439
Lubeck to Travemunde ...	12		
	1439	Total distance	4188"

From the Right Hon. Sir James Graham, Bart., M. P.

"Netherby, 18th October, 1839.

"MY DEAR SIR WILLIAM,

"I am greatly obliged by your kind permission in allowing me to read your Report of the present state of the fleets in the Baltic. It contains a very clear and interesting account. The Russian excuse for the extent of their armament is a pretence which can deceive no one; and I hope we may take the timely warning, and year by year continue steadily to build and launch ships of the line of an enlarged construction, not forgetting steamers of war and double-banked frigates. It is better that Sir John Barrow should have reconsidered his statement, which treated with contempt the formidable preparations of the Russians. Admiral Fleming also, from his snug berth at Greenwich Hospital, may yet learn that the Russian fleet is not a 'pasteboard' one. I observe that the Russian Demonstration ships have their masts on board, and the rigging over the mast head, as I proposed.

"I am always, with sincere regard,
"My dear Sir William,
"Yours very truly,
"J. R. G. GRAHAM.

"Capt. Sir Wm. Symonds, R. N."

This year, 1839, the armament of ships, in all classes, was increased. The vessels launched by the Surveyor were as follows:—

Queen,	110 guns, first-rate	- Portsmouth, 15th May.
Fantome,	12 guns, brig -	- Chatham, 30th May.
Persian,	„ -	- Pembroke, 7th Oct.
Crane,	6 guns, packet, -	- Woolwich, 28th May.
Cyclops,	steamer, 320 h. p.	- Pembroke, 10th July,
Vesuvius,	„ 280 h. p.	- Sheerness, 11th July.
Stromboli,	„ „	- Portsmouth, 27th Aug.
Hecla,	„ „	- „ 14th Jan.
Hecate,	„ 240 h. p.	- Chatham, 30th March.
Alecto,	„ 200 h. p.	- „ 7th Sept.
Prometheus,	„ „	- Sheerness, 21st Sept.

The *Queen*, a three-deck first-rate ship, and the largest built by Sir W. Symonds, was launched 15th May. Her length from figure head to stern is 247 ft. 6 in.; length of gun-deck, 204 ft.; beam, 60 ft.; depth in hold from upper deck, 46 ft. 9 in.; tonnage, 3104; height from the water-line, of her bows, 35 ft., — of stern, 38 ft.,—of lower gun-deck ports, 6½ ft.,—of the main truck (at the mast head), 190 ft. Her light immersion was 14 ft. 3 in. forward, and 18 ft. 11 in. aft; her load 23 ft. 4 in. forward, 24 ft. 4 in. aft. Her armament consisted of 100 32-pounders, and 10 68-pounders, the weight of which was 311 tons, and of a broadside of shot, 1840 lbs. The weight of her provisions, stores, and water was 965 tons. When all the principal working sails are set she spreads 29,668 sq. ft. of canvas, or more than two-thirds of an acre (=43,560 sq. ft.). The cost of her hull was 81,784*l.*; of the armament, stores, and furniture, 32,708*l.*; making the total, equipped for sea, 114,492*l.**

She was built on the new system of iron riders and thick strakes on the head and heel of the timber, instead of the large wooden riders and trusses of Sir R. Seppings. Her topside planking, moreover, is fastened to a great extent with copper, instead of iron, bolts; and her internal fittings were more complete and costly than those of the old class of ships. She has the elliptical stern, which is so great an improvement on the round stern, contributing to beauty of form. There is a complete model of her, fully rigged, at Somerset House; besides various models of sections, showing her internal construction, with all the latest improvements in ship-building, the guns in the bows and stern, &c. She was engaged in the attack on Sebastopol, 1854. The Duke of Wellington, 131 guns, Sir C. Napier's flag ship in the Baltic

* Other first rates, in a less forward condition, have cost 26*l.* to 40*l.* a ton.

in the late campaign, is a lengthened Queen; and the Royal Frederick, now on the stocks, is another. She was visited by Her Majesty Queen Victoria, at Spithead, 1st March, 1842*, when proceeding to the Mediterranean with the flag of Vice-Admiral Sir E. W. Owen on board. She then carried 1200 men, and extra stores for the fleet; but the complement of her officers and crew was 1000.

All her captains (with one exception†) uniformly report her as being a remarkably easy and weatherly ship, and generally superior to others of her class. In a six days' trial off Malta, 1842, she beat every vessel, except the Vanguard, on every point. Her stability was so great that when other ships marked 12° to 16°, she declined only 7° against the Vanguard's 5°, when pressed by all the sail the masts would bear. The Admiral reported her to be as "handy as a pleasure-boat," "as manageable as a yacht." Captain G. F. Rich, in January, 1844, proclaims her superiority in every respect,—in sailing, working, weatherly qualities, and stability; which last was indicated by her small inclination (only 4° to 6°) under sail. Her lee ports, from this circumstance, stood uncommonly high. Sir E. Owen supports this by adding his "opinion that she is a perfect man-of-war, the finest and best three-decker in the service." Rear-Admiral Sir F. Mason, in June, 1844, says that the only ship superior to her in sailing was the Surveyor's Vanguard. In December of this year, Captain Martin reports her stability to be "very great when completely laden, but as she lightens she loses it in a greater degree than the Caledonia or St. Vincent," which ships, he states, had the "advantage on every point of sailing on a wind." When going free, the Queen beat the Caledonia; "but our trials

* The dimensions, &c., above given are taken from the card which was prepared by Sir William for Her Majesty on this occasion.

† Captain W F. Martin, who commanded her in 1844–5, when flag-ship to Sir W C. White.

were only in moderate weather or light winds." At a subsequent trial, Sir H. Leeke explains this by stating that her "copper is so perfectly foul* that it is with difficulty, under a light press of sail, that we were able to steer her."

In October, 1845, further trials took place, and the collected opinions of several officers, including the Queen's Captain, now Sir B. Walker, Bart., are given below. First, the Rear-Admiral, Sir Samuel Pym: —

"Nothing could be more easy, in all the trials, than the Queen, which never appeared to strain anything. I am perfectly satisfied that the Queen is the best ship."† This, was after some "splendid trials," with a heavy press of sail, and against a head sea.

"The Queen always appeared to me a remarkably fine man-of-war on all points. In all moderate weathers, whether on a wind, going free, or before the wind, she has no competitor. In strong breezes and a heavy head sea the Queen also proved herself a very fine ship, standing up remarkably well under a heavy press of sail, and appearing to pitch very easily. The Queen is certainly much stiffer under a press of sail than any of the squadron, Albion excepted. I would remark, in proof of the great ease of the Queen in a heavy head sea, that on one occasion after a heavy gale during the night, and a very strong breeze during the trial all the forenoon, in the afternoon the wind became moderate, the sea running, when the Queen set her royals. I feel convinced no other ship could have done the same." — *Capt. R. F. Rowley*, 15th Oct.

"In compliance with your letter of this day's date, I have the honour to enclose the sailing qualities of H.M. Ship under my command, and at the same time I beg to remark, that I consider the Queen to be a most magnificent man-of-war, and in every respect superior to the St. Vincent or Trafalgar, or any ship I ever served in. She is fast, and had on the whole a decided advantage in sailing over every other ship of the squadron. She is very stiff, very weatherly, rolls and pitches very easily, and without straining. She steers and works remarkably well. Her spacious decks are well adapted for

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* She had for several months been anchored at Plymouth.

† Admiral Sir S. Pym died in 1855.

working the guns, as well as for the comfort and health of the officers and crew. She can stow under hatches seven months' provisions of all species, for her war complement, and would, if the hold was properly stowed, carry at least 550 tons of water; and in my humble opinion she is the finest ship in the world."—*Capt. B. W. Walker*, same date.

"With respect to the other ships of the squadron, I consider the Queen to be by far superior, of her class, on all points, either in fine or bad weather."—*Capt. N. Lockyer*, same date.

"The stability of the Queen was very apparent. The Queen, as compared with the last cruise, fell into a doubtful comparison with Rodney, Albion, and Canopus."—*Capt. F. Moresby*, same date.

"I consider the Queen the fastest ship both by and off the wind, in fine weather."—*Capt. E. Collier*, same date.

"The Queen has been beaten by the Trafalgar in this, as in the last cruise, on all occasions on which she has had to contend with strong breezes and a head sea."—*Capt. W. F. Martin*, same date.

"Queen—perfect in all points."—*Capt. G. Willes*, 17th Oct.

Sir W. Symonds complained that Sir G. Cockburn, after he came into office, in 1841, endeavoured to "destroy the Queen's sailing properties; but she was proof against these artifices; and in the hands of Sir B. Walker she beat the whole fleet,"—as we have just seen.

In 1846 and 1847, she was reported by Sir W. Parker and Sir C. Napier to have been beaten, occasionally, by the St. Vincent, Canopus, and Vengeance. Sir C. Napier states (29th November, 1847), "The Queen is certainly superior to other three-deckers, in sailing and stability; but for her size she is underweighted."* He thinks she ought to mount ten more guns in her vacant ports, and that her main decks ought to be heavier. Her bows are pierced for 21 guns. In the Crimea

* The Queen "is certainly a good ship. I have tried her in *fine weather*, and never had a three-decker equal to her. . . . . Sir B. Walker, a better judge, says, 'In *bad weather* the Queen is perfect.'" — SIR C. NAPIER'S *Letters on the Navy*, 1851.

she carried 116 guns altogether. She stores 466 tons of water; and, when fully loaded with stores and provisions, the midship ports are 6ft. 5in. out of the water.

In 1847, Lord Auckland, First Lord of the Admiralty, stated that the "universal report from every authority who has given an opinion upon the Queen is, that she is *the finest ship that ever was built.*"* Sir W. Parker in the trials of July, 1848, reports her as a "prodigiously fine man-of-war" in every respect. Four years later he gives another valuable testimony in an

Extract of a letter from Admiral Sir W. Parker, Bart., dated "Queen, 26th April, 1852."

"Having had my Flag flying for upwards of two and a half years in H. M. S. Queen, I am induced, from my personal observations, to express my admiration of her qualities, which, considered generally as a three-decker, are in my opinion unrivalled.

"I have found her steer well, handy in working, easy in bad weather, possessing excellent weatherly qualities, with great stability and speed, in all points except against a head sea; but she is sensitive in her trim, which requires close attention. She carries her present armament remarkably well, and I am decidedly of opinion that she answers better with 100 tons of iron ballast, than with a less quantity."

The *Fantome*, built to carry 16 guns, was a beautiful model, three feet wider than the old 18-gun brigs. On the coast of Africa, in 1839-41, under Commander Butterfield, she was found equal to the Waterwitch; and in a seven months' cruise off the Angola seaboard, in 1841, signalised herself by the capture of 16 slavers and 1840 slaves. She was also sent to chastise the Moorish pirates on the Barbary coast, in May, 1846.

* *Evidence* before *Committee on Navy Estimates*, 1847–8.

The *Cyclops*, when first launched, was the largest steam frigate in the world; 217 ft. 9 in. long, and 38 ft. beam, or 57 ft. across the paddle boxes. She attracted great admiration at the time, and, like the Gorgon, was built to combine the qualities of sailing and steaming well. She carried a 98-pounder on a pivot, at her stem and stern; with four 48-pounders, and sixteen 32-pounders on the gun-deck. She stored 420 tons of coals. Captain H. Austin, an expert seaman and judge of steamers *, in 1843, reports her as a particularly easy and weatherly ship, — an advantage which was "greater with increase of wind and sea;" that she is exceedingly strong and well built; and that as a steam vessel of war, she is "very near perfection, as, whether with or without coals, she is able to make any passage, under sail alone, satisfactory and expeditiously." Her greatest speed was 11¼ knots.

Of the *Hecla*, her commander, Lieut. J. B. Cragg, reports (1840-1), that, under steam, she "beat the steamers Kite and Spitfire very much."

The Commander of the *Stromboli* writes, 16th Sept. 1840, off Galita, that she "exceeded the most sanguine expectations I could have formed of her. Her speed in smooth water, and when drawing, aft 15 feet, and forward 14 feet, is *twelve* knots; this with 595 marines in heavy marching order," on board. She reached Gibraltar in five and a half days; pitched and rolled easy, and scudded well. She was sister ship to the Styx, 180 ft. long, but 91 tons smaller in capacity; and was built in Seaward's yard. She, as well as the Cyclops, figured at the bombardment of Acre.

* Now Captain-Superintendent of Deptford Dockyard.

CHAP. VII.

1840.

BOOK OF "NAVAL COSTUMES."—TRIP TO BREST.—VISIT TO THE FOREST OF DEAN.—MEMORANDUM ON STAYING MASTS.—BUILDING OF THE IRIS, BITTERN, MEDINA, DRIVER, AND OTHER VESSELS.

From the Right Hon. Sir James Graham, Bart., M.P.

"Grosvenor Place, 15th April, 1840.

"My dear Sir William,

"I have neglected too long to thank you for a beautiful book of Naval drawings, which you kindly sent as a present to Lady Graham. We seldom meet, but I watch your success with anxiety, and I hear your praises with the pleasure of a friend, who has long known your merits, and who felt certain that the day would come when they would be generally admitted.

"I am always, my dear Sir William,

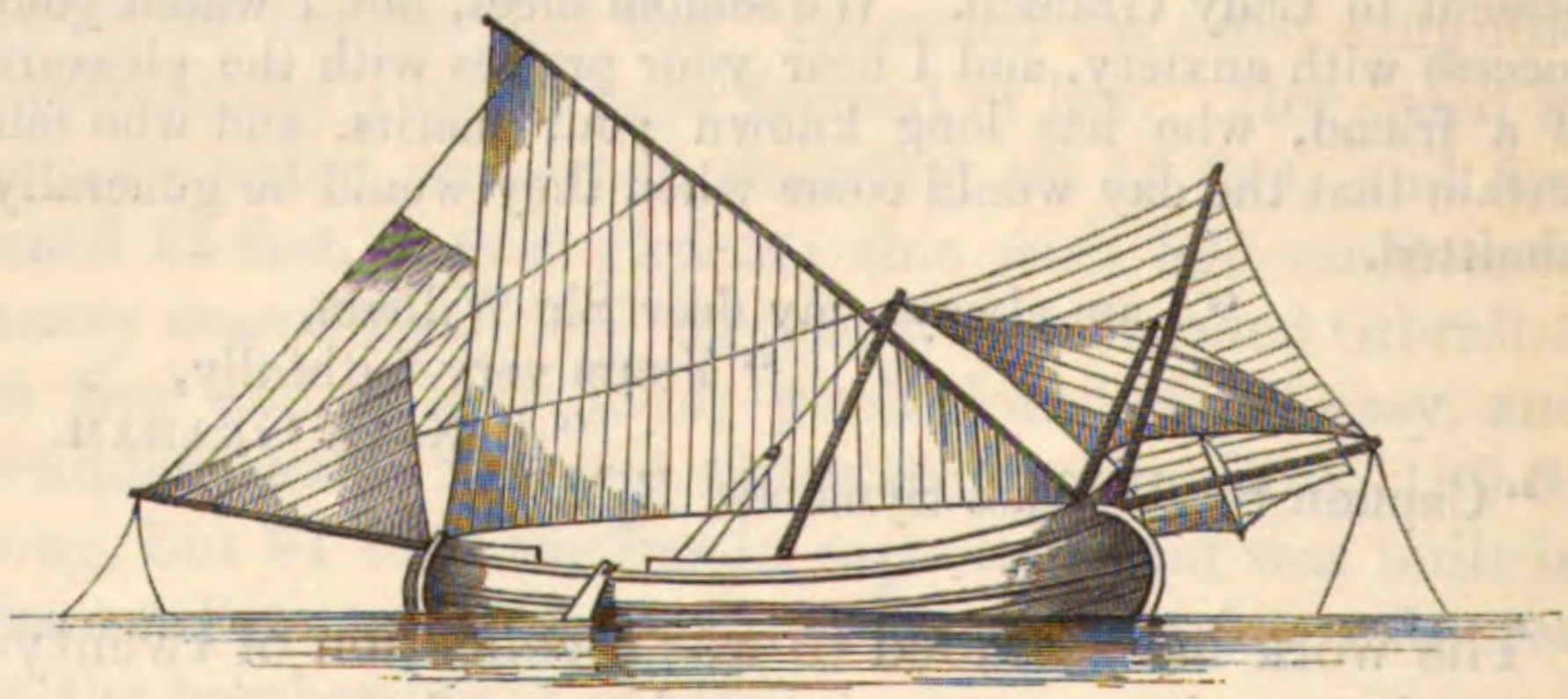
"Yours very faithfully,

"J. R. G. Graham.

"Captain Sir William Symonds, R.N."

The work here alluded to was a collection of twenty-two plates, drawn on zinc, of men-of-war, merchant ships, and sailing vessels of different parts of the world, printed by Sir W. Symonds for private distribution. He called it "Naval Costumes," which hardly describes its nature, unless we take the word in its original Italian sense (*costume*) of a style or manner. It contains engravings of the Nancy Dawson

and Fortune's Favourite *, his two first-built yachts; his Double boat *; Lord Vernon's Bermudian-rigged boat; the Mary, Baltimore schooner, a prize to the old Pique; the Dutch dogger; the Portuguese "bean-cod," a fishing-boat, remarkable for its very eccentric rig and build; the Mediterranean bombarda; the felucca; the swift-sailing scampavia, and the settee, which Robinson Crusoe describes; galley of St. John of Jerusalem; Venetian gondola; Trieste boat, with its fore part rising out of the water; Greek polacca, and its pole-mast of one piece; Turkish vessel with the masts raking forward, and Greek mystico, in the same style; plans of the Russian camel, for moving a ship over a bar; Prayà Grande passage boat; Bahia market and fishing-boats; Brazilian catamaran or gouguada, made of six canoes, joined side by side; Arab dow; buggerow from the Gulf of Cutch; Bombay pattamar boat; Trincomalee canoe; Burmese war canoe; the Chinese junk, which they esteem a model of perfection never to be departed from; and the flying proa of the Indian seas.†



A "BEAN-COD," OR PORTUGUESE FISHING BOAT.

* See Chapters II. and V.

† The flying proa of Tinian, first described in ANSON'S *Voyage*, will, in a brisk wind, go *twenty miles* an hour, under a great triangular sail of matting. It has flat lee sides, and an outrigger resting on a second and smaller boat, about six feet distant, on the weather side. Both ends being alike, it has no occasion to put about, but moves with either end foremost.

In the early part of this year, 1840, Sir William went on,

"A TRIP TO BREST

"FOR THE PURPOSE OF GAINING INFORMATION ON NAVAL SUBJECTS.

"Embarked at Southampton, accompanied by Mr. Perrier, the English consul and his family, in the Fearless, one of her Majesty's small steamers; and sailed for Jersey to procure coals. Arrived at seven in the morning of the 21st, and with coals sufficient only for forty-eight hours she was full. Procured a pilot and a passport, and sailed at 10.30 P.M. the same evening, steering from Le Corbière, which is the S.W. extremity of Jersey, W.N.W. about twenty-three miles. Found ourselves off Roches Douvres, at three in the morning of the 22nd. Having passed them, I was called up on deck about six in the morning by the second master, who had charge of the vessel, and found that the pilot was confused, having no knowledge of the isles and rocks of Brehat, which we had approached (a new light-house being built upon them); absurdly protesting that they were the Black Rocks, and that he had hauled in for Brest Harbour; but in truth, he was steering toward some very dangerous rocks which lay between Roches Douvres and the isles of Brehat toward the main land.

"Having commanded the Violet lugger in the war on this coast, Brehat was at once familiar to my recollection. I recommended the second master to suspend the pilot and to steer west, taking charge myself. Saw Trequier, and the Seven Islands soon showed themselves, with the light-house. Passed the Isle de Bas about four miles distant, with its light-house. Off Abreverack made the signal for a pilot, and picked one up close to the rocks, in time to clear the Passage du Four before dark.

"It was fortunately high water when we left St. Aubin's Bay, Jersey, as the pilot passed over the rocks off Noirmont Point; no chart, quadrant, sextant, or mathematical instrument on board.

"The *Passage du Four* should not be attempted by any person who is not well acquainted with the set of the strong tides, and the innumerable rocks which make the passage very difficult and dangerous. A great many French *chasse-marées* and other coasters are lost every year, notwithstanding their practical experience and knowledge.

"We ran down to the westward of the rock called Le

Four, which lies about S.W. from those rugged-looking rocks called Les Forsals, and which are scattered off the village of Forsal, from which St. Matthew's Point bears about S.S.W. by compass, distant about twelve miles. Portspoden is the next place to the southward, and is a long scattered village, where many retired captains of French merchant-ships reside. Besides the rocks above water, which are very numerous, there are many always covered. Ushant, with its light-house, and many other smaller islands, are on the right: among them is the 'English rock,' which stands up resembling a vessel; it is called so from the mistake of one of our frigates, which chased it and fired at it during the war, under that impression. Point St. Matthew has a light-house on it, which is built on the ruins of an ancient monastery. Two dangerous sunken rocks are right and left of you, before getting abreast of Conquest. On approaching St. Matthew's Point, the Black Rocks running in a straggling line to the west of St. Matthew become evident; reminding me of many a weary week, month, and year passed off them in the war, when the Channel fleet blockaded Brest.* Rounding the point of St. Matthew, the course to the entrance of Brest Road is nearly east. To avoid a rock called Le Cocq, we kept a small rock on with Benignet Island, until Bertheaume Castle or Fort opened. There are working marks on the shore for this rock.

"*Brest Road.*—Proceeding from St. Matthew's Point, after passing Le Cocq, we kept on the northern shore, to avoid the effect of the tide crossing Bertheaume Bay. When in the Goulet, or strait leading to the Road, the fortress of Magon is on the left, and appears strongly fortified, having high barrier walls from the summit to the bottom of a rocky declivity. In the mid-channel are a line of shoals, Les Fillets, Goudron, and Magon; the latter has a beacon on it, and is the eastern-most. The Fort of Cornouailles is opposite to Fort Magon, on the southern side, and on the point of the peninsula of Kelerun is the Fort des Espagnols, which guards the entrance, and finishes the strait. The land is bold and precipitous on each side. After passing the Point des Espagnols, off which there is a reef of rocks, the Road opened; it is very spacious and grand, being about five miles wide, and might not only contain an immense fleet, but they might manœuvre within its limits. There are two rivers, Landerneau and Chateaulin, and some other minor streams, which empty themselves into this fine Road. The head is divided into two arms, Landerneau falling into the northern branch, and Chateaulin into the

* See Chapter I.

southern. On entering the road, at half-past ten o'clock, steered for the light on board the guardship, a *gabarre*, or store-ship, Le Robuste. Found lying in the road, L'Orient, an old 74-gun ship, at present a floating college for young *aspirants;* a school-ship, called L'Abondance; a small corvette, to exercise the young officers; a brig for the boys; and a large, heavy, round-sterned brig of 20 guns, Le Cassard, in commission,—long, narrow, with full buttocks, and very clumsily rigged.

"The town of Brest is on the north side of the Road. The shipping lie off in a S.S.W. direction, some within the Banc de St. Pierre, and some without it. There is from 27 to 37 feet water upon the bank at low-water spring-tides. We passed within hail of the Robuste, and were ordered to anchor on her bow. An officer came alongside, and put the quarantine questions to the second master of the Fearless, and gave us a quarantine flag to hoist. The following morning, Monsieur de Raymond, *chef des douanes*, came on board; soon after which we were allowed pratique, and went ashore in that officer's boat. Landed under the castle, on the starboard side of the entrance into Brest Harbour, on which stands Cæsar's Tower, apparently of ancient construction; one of Don Carlos's colonels and aids-de-camp was confined in it as a state prisoner. Passed through a cut in the rock, and through a square of barracks within the castle, under an archway, over which are civil and military prisons. Observed some brass cannon, conveyed from Mexico, which, with large piles of shot and shells, were being cleaned by convicts—sad-looking creatures, with villainous countenances; emaciated, ill-dressed in scarlet, and scarcely human. Passed through the lines on the town side, and found a handsome promenade, having six rows of elm trees,— a sort of boulevard, which runs the breadth of the town on the south side, and facing the Road of Brest.

"*The Town, the Harbour, and Dockyard.*—On the sides or shores of the harbour, which is a crooked inlet of the sea, the dockyard extends, apparently, a mile and a half, or two miles. There is throughout its whole extent, between a boom which is across the entrance, and a boom at the higher end of the yard, in a confined space as to width, about 30 feet depth of water. The surface of the yard, on each side of the water, is very contracted and confined; at the back, precipitous cliffs of granite are the boundary, on which numerous convicts are constantly employed, quarrying and clearing, to increase the space on the surface of the yard. The stone thus acquired is used for walls of defence, boundary walls, and for those fortifications with which the town of Brest is entirely surrounded. The

town is tolerably regularly built and well paved, but the absence of *trottoirs* for foot passengers, makes it very disagreeable and inconvenient. It is separated from the dockyard by boundary walls. I observed seven building-slips, laid obliquely from the direction of the harbour, which would not be found broad enough to launch ships in a transverse direction. Three were occupied by ships of the line, the Valmy, of 120 guns, Tage, 100 guns, and Breslau, of 90 guns; the two latter on two decks, with guns on their gangways. The other four slips had frigates on them: the Persévérante, the Pandore, the Nemesis, and La Charte. The Pluton steamer occupied another slip. There were also the Génie and Mercure brigs; and Le Loire, a *gabarre* of 600 tons.

"The Pluton is on the plan of a M. Prateau, and is in frame 190 feet long; she is to have two engines, each of 110 horse-power; there is also a small steam-boat building, the Gallibri, to have engines of 80 horse-power each. All the slips were uncovered. There are five docks, the largest of which is 60 feet (English) broad. They are also uncovered, as it is now the fashion at Brest to appropriate a very efficient temporary covering to each ship, building or repairing, which being put together in compartments, may be transferred from one ship to another. It is formed of a frame-work of fir, and covered with a light canvas, saturated with a mixture of concentrated linseed oil and litharge. It is perfectly water-tight, and so transparent that a sufficient degree of light is thrown upon the work. Each ship has her separate storehouse appropriated to her. The boat and mast-house are by no means extensive; but the roperies and sail-lofts are in fine large buildings; as are all the magazines in general, which are well kept, and in an improving state; everything appears extending. There is no space in the dock-yards for timber-sheds or stacks. The *matériel* is brought from the timber depôts when wanted.

"I was informed that there are 2554 workmen employed in the yard at Brest, of all descriptions, of whom 639 are shipwrights; and there are about 2700 convicts employed in this arsenal also. The capstans and rudders are made in the same houses. The Model Room is handsome and spacious, but does not possess many objects, as all the best models are sent to the Louvre collection, in Paris. The carvers' shop is also handsome, and contains some spirited performances. Very few workmen were employed on the new ships, but several frigates, corvettes, and brigs were under repair, and the Commerce de Paris was being razéed for the service of the port, as a school-ship, to take the place of L'Orient, which, with the Veteran, Tourville, and Jean Bart—all old 74-gun ships, similar to the old Hoche and Dugay

Trouin, taken by us in the war — appear to be quite broken-backed and unserviceable.

"*Remarks on the construction of the ships generally.* — I was surprised to find, and some of the engineers who accompanied me participated in my unexpressed opinion, that their new ships, although larger, are very inferior in form and qualities to their old ships. They appeared ashamed of them, and all agreed that *Theory has ruined all their Experiments;* loudly blaming the present system, which affects to be on the unerring principles of science, while it fails wherever it is tried in practice. They confess that they are sacrificed to old prejudices with regard to dimensions, and that the mode of admeasuring tonnage has been, and still continues to be, destructive to the properties of their ships, as regards stability. In the war, they were in the habit of trying experiments on form, in their frigates, corvettes, and smaller vessels; and scarcely two were similar. Late into the war, they were satisfied with the models of the Commerce de Marseilles, Guillaume Tell, and Hoche, for ships of the line; until a termination of a conflict which, in their vanity, they considered ended fatally to them, more from the superiority of English ships than English sailors. This determined them to build ships larger and more like ours in form, with increased depth; which gives them all an excessive draft of water and immense immersion, to the prejudice of all good qualities. They are also exceedingly wall-sided, so that with the least force their guns and weights are overhanging and not water-borne. In fact, they are large unwieldy ships, stuffed full of guns, which make them very difficult to work and manœuvre. The area of the Valmy's midship section is excessive, consequently its connection with the extremes is abrupt, and difficult to propel. The entrance is not hollow, and for such a huge lump, the run is fine below, but rises into a full buttock: and the counter for some depth is nearly flat, — the transom and the counter timbers being after the old fashion.

"In the interior of each buttock, large diagonal timbers occupy a great space, reducing the capacity of the bread room. The outside planking on all the ships appeared remarkably well brought on the seams, being close; unlike ours, which are doomed to receive a fixed quantity of oakum. From the abruptness of the bows and buttocks, it would be impossible to bring the walls to, through any process of steaming or forcing, as they are a foot in thickness. At Brest, the 'thick stuff' for those purposes is converted from timber of a sufficient curvature to apply without force or steaming. The upper works are all trenailed and iron-fastened with headed nails. The bottom

beneath the water line is copper-fastened. The sides tumble home very little, and return outward aloft; requiring very broad channels to clear the rigging of the gunwales. The guns in the wake of the rigging must be useless. The beams, however, on the orlop and middle decks are in their places, but not fastened. I was much struck with the enormous chocks of crooked timber laying on the orlop, in readiness to apply to the lower deck beams, which are fastened with triangular plates, similar to Roberts's principle. Each knee plate has an arm or bolt which goes through the ship's side, and is secured by a screw; but they are not otherwise fastened to the frame, being only bolted to the cheek and to the beam. The mechanism is altogether indifferent, and with the exception of planking, inferior in all respects to ours. The Valmy, Tage, and Breslau, have ugly square stems, and have no guns which will train forty-five degrees from the line of keel, and are not at all calculated for defensive operations; nor has the bow more than two guns of a side calculated to throw a shot on a line with the keel for offensive operations. The Tage is similar to the Hercule, known to our officers in the Mediterranean. Captain Sharpe informed me, that the captain of the Hercule acknowledged that his ship is a failure, from her crankness, heavy movement, and unhandiness. Twelve new ships of this class are at present building in the arsenals of France. The Breslau is similar to the Suffren, and appears very similar in form to, although smaller than, the Tage. Both have wall sides, and will draw about twenty-seven feet water; they are about half finished, but no hands were then employed upon them. I have reason to believe that the weights in all the French ships exceed the calculated capacity, and that they draw more water than they were intended to do.

"Their frigates are none of them equal to our *razées*, and are not superior, except being crammed with guns, to their greater disadvantage, which makes them sound larger and of more force, than our 52 gun frigates of Winchester class, which are better formed for sailing than they are. The French frigates in commission at Brest were, La Didon, La Minerve (*razée*), La Venus, L'Astrée, L'Erigone, L'Ariane, L'Heroine, La Thisbe, La Sappho, La Naiade. La Minerve, and La Didon, were being repaired; L'Erigone, rigging and preparing for sea. La Surveillante, which was built as an experiment, upon an economical plan, by M. Boucher, is said not to have answered. Her topsides were planked diagonally with short stuff, and, I understand, she was altogether built of odds and ends.

"Four new frigates of the second and third class, at St. Servan, are equal to any of ours in ugliness, having sterns like Dutch doggers; La Cleopatre, La Danaë, L'Erigone, and another. About eleven frigates were laid up in ordinary; some very old and out of repair, but far superior in form to the new ones. The Guerrière and Minerve, are the only *razées.* There were also several corvettes, and brigs, and gabarres laid up. The Cuirassier and Cassard, of 20 guns; clumsy, heavily-rigged brigs, with their fore and aft mainsails brailed up, and having round sterns, were in the Road, and ready for sea. They are heavy buttocked and much deformed with bad proportions. Upon the whole, I consider the Russian 84-gun ships (similar to the Empress), the frigates (similar to the Pallas), and the corvettes and brigs, are better formed and kept in better order in point of trim, rig, and general appearance, than the French. The characteristic of the French ships is short lower masts, taut topmasts and top-gallantmasts, short royal masts, square yards, with little symmetry; and they possess some of the ugliest and most ineffective round sterns in the world, much ridiculed by the officers in the dockyard at Brest.

"The model of the Valmy is being made and nearly completed for the service; it is got up in the most expensive manner; the fastenings of the hull, and all the metal work, hoops for masts and yards, chain plates, &c. &c., being of silver. I examined a model of the new French capstan and its stopper. The cable (with no messenger) passes round the capstan, and the links are received and held in a casting of iron, formed for that purpose, but only far enough round the barrel to insure its being held; the cable returning back round rollers to go below on its own side, which is considered an improvement on the original plan. The stopper before all is so heavy, and such an incumbrance — being from seven to nine tons in weight in the bow of a frigate — and so unwieldy, that although there is ingenuity in its construction, and it does away with the messenger, I consider it less simple, and not so good and useful for general service as Gordon's. There is no surging, no checking or veering, in case of necessity, but by walking back; and in single-deck'd ships it is embarrassing, and an awkard impediment, where the men must step over it.

"The ring and eye-bolts for breechings and gun tackles are ranged and keyed outside the ship; anchor slips are generally used. Rotche's fids are in general use for topgallantmasts; and the topmast cross trees are hugely clumsy and heavy, from being adapted to those fids. The Didon and L'Ariane are considered good ships, and with the Valmy are

the productions of M. Le Roux. They are, in my humble opinion, very so-so; and are ugly, with heavy buttocks. Le Diligente, a corvette is considered the fastest vessel in the French service; they have tried in vain to build after her. Her constructor is dead. He resigned his situation because she was rigged contrary to his opinion; in which case, and in all others where his advice was unheeded, she failed; but she has been fitted latterly in every point according to his recommendation, and now, they told me, she succeeds admirably.

"Spare rudders are adopted to gudgeons on the stern posts, fitted intermediately between the gudgeons of the established rudder. Mr. Consul Perrier has promised to send me a sketch of a screw invented to set up lower rigging, which appears to have many advantages, and is the best screw that I have seen for that purpose. Two persons may set up the rigging of a line-of-battle ship. Unlike dead eyes and lanyards, it would be uninjured by the explosion of the second deck and forecastle guns, and would afford more room for training them. In a gale of wind the lee rigging may be taken in with exactitude any number of inches; so that each shroud would bear alike when on the other tack.

"I went on board L'Erigone with M. Prateau, and inspected the fittings. She appears much overmasted. She is long, narrow, and unsightly. They were disguising and trying to beautify her round stern. There is much joiner's work in the between-decks, which is partitioned off for store rooms, leaving little space for hammocks; no stools or tables for the men. Admired the shape of the superstructure of the Commerce de Paris. Saw a rather handsome Spanish corvette, on American lines, brought from Mexico; a prize by Admiral Baudin. I was told that the naval engineers are doing all in their power to prevent her being commissioned, fearing that she will outsail everything of their construction.

"*Timber.* — A large supply of timber is always kept in the depôts of Kerhuon and Penfeld. The former is called L'Ance de Kerhuon, and is situated about five miles to the eastward of the town of Brest, on the north shore of the river Landerneau, It is a sort of lagoon, dammed up at the entrance, having flood gates or sluices for receiving and discharging the timber. It appears about a mile long, and about a quarter of a mile broad. It is studded all over with rows of oak piles, between which the timber is deposited and fastened down by cross pieces of wood, in order that the water may flow over it. The timber is placed in succession in these rows, according to its age; and a large stock is so preserved. Penfeld is of similar

description, and is situated at the head of Brest Harbour above the dockyard. L'Ance du Fret, which is about five miles to the southward of Brest, was also used as a timber depôt during the war, but is now discontinued; although I observed that it is also studded with oak piles for the security of the timber. It is imagined that timber is well preserved, until it is wanted, under this mode of management; but it is so saturated with salt water, — so far as water will penetrate — that it is injurious to iron fastenings. They do not suppose that the process makes it more durable after it is converted. There is also much inconvenience in getting it out and conveying it to the dockyard; and after being so saturated, it requires a longer period to season it for use. It is only necessity, from want of space in the dockyard, which makes it expedient to have recourse to this mode in Brest yard. This is singular; as in Toulon it is stowed in sheds; and I heard a remark that the bottoms of Brest ships endure longer than those of Toulon; and that, on the other hand, the upper works of the Toulon ships endure the longest. They appear to have very little fir timber of large dimensions; and they complain of a great want of spars for large ships' topmasts. Some of the lower masts were made of only five parts, and some of fifteen. They were making fishes for lower masts of Cayenne timber, which may well be called 'stink wood.' Elm, ash, and beech, are alike deposited in these depôts. The oak appeared of good quality, and I was informed that it is all felled in November, December, and January. The dockyard chips are given to the poor.

"*Naval Hospital.* — Everything at Brest is under the marine department. Admiral Grivel is the prefect; Rear-Admiral Dufrêne is sub-prefect. All the troops at Brest, the shipping, arsenals, and all the fortifications, are under the prefect, who is to all intents and purposes the governor and commander-in-chief. M. Fulloi, the surgeon-general, who is held by all in high esteem and consideration, has all the hospitals under his superintendence. I was informed that it is probable he will shortly fill the highest situation in his profession at Paris, which is at present held by his uncle, M. Kerogrein. M. Fulloi married a daughter of General Blunt, of Southampton; he ranks with a *capitane de vaisseau.* The hospitals are in most excellent order and discipline, under his management; clean, well ventilated, and arranged in a very systematic manner; no smoking, no riot, no noise. The greatest order prevails. The wards are very similar to those in our great naval hospitals. The officers' wards are handsomely furnished with carpets, chairs, sofas, &c.; and there is a general dinner table laid daily, according

to the number of officers who are patients in the establishment. The tisannerie, for barley water, is nicely kept, for supplying drink to the invalids. The room in which the linen of the hospital is kept, is very convenient and neatly arranged under a *rêligieuse*, who appeared very proud of her charge. M. Fulloi, after showing me the museum and gardens, conducted me to the establishment for convicts, which is a revolting, horrid spectacle.

"The bastions and lines are all planted with elm trees. The town does not occupy much ground, and is entirely surrounded with lines of fortification. After calling upon Admiral Grivel, the prefect, and Rear-Admiral Dufrêne, the sub-prefect, I visited M. Segonda, who is the *constructeur-general* of Brest; then called upon the *maître de port*, who is a captain in the French navy. He was an invalid, and I did not see him. Met the *commissaire*, who has the charge of the convicts, and who offered to accompany me to inspect his department. My name appeared to be known, although Grivel and others called me 'Monsieur Comme-ça,' * making the shape of my midship section with their hands. Walked round the ramparts and along the coast to the eastward of Brest, towards St. Mair; inspected Brest Harbour from the heights on the coast; a wild barren cliff, miserable roads, not the least appearance of enterprise; no steamers, no boats, no ships building, no mercantile establishments, nor yachts. I could not help fancying what a busy scene would have covered this fine, vast estuary of water, if its shores were inhabited by my countrymen.

"When I called at M. Segonda's office in the dockyard, I found him sitting with five or six other engineers in committee, where I took a chair until joined by M. Le Roux, the constructor of the Valmy, &c. We rowed up to the Valmy's slip, and that of Pandora. I observed that long, diagonal shores are considered necessary, in addition to the common ones to prevent any movement; the inclined plane being steep where they are building. I was informed that although hollow-leached sails are the 'establishment,' they are always altered to straight leaches by the captains.

"The cables, rigging, and cordage are all made of the same sized yarn; very fine, not for the sake of strength, but to make

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* Let the reader hold up his hands end on, and bring the thumbs to touch in a line, with the fore fingers standing up perpendicularly; he will then have the form of a flat-floor ship of the old construction. Still keep the thumbs together, and bring the fore fingers tip to tip; and he will see (inverted) the favourite midship section of "Monsieur Comme-ça."

them durable. Hot tar is forced through pipes into each rope-walk floor, and the yarns are tarred singly. The hawser-laid rope is all four-strands, if for running or standing rigging. The cable-laid is all three strands. The anchors are in shape very similar to our old anchors, and the shanks and arms formed nearly round, although some were square. The French sail-cloth is very inferior to ours.

"It is the custom to place the masts and set the rigging up deliberately and mechanically, before the officers and crews join the ships; and from keeping their wedges fast, the masts were straight, and not like ours, crippled from over-staying.

"I dined with the prefect, Admiral Grivel, who was particularly kind and attentive to me. About twenty-five persons were at table; the staff, and the principal officers and heads of departments. A handsome-looking dinner, but composed of little that I could relish or consider palatable, or even wholesome. We did not sit long after dinner, but retired into the drawing-room and had coffee. The admiral and the surgeon-general, M. Fulloi, accompanied me to Consul Perrier, and spent the evening there. Three French gentlemen and a lady were also present.

"The bayonet exercise—giving point, half turning round and recovering—is the order of the day; in preparation, I thought, for Algiers. M. Fulloi informs me, that the average height of French soldiers in the present day, is not more than *four feet eleven inches* (French).

"On the Sunday after my arrival, I accompanied the consul to the square called Le Champ de Bataille, and was present when several navy and army officers were decorated with the Legion of Honour. A great deal of farce was perpetrated with the sword, and afterwards, beastly kissing the dirty faces of the honoured. Two regiments of the line and marines went through some common manœuvres. Two bands were in attendance; the drum-majors like baboons; the soldiers all of very short stature, ill formed, ill set up, and ill dressed; the worst marching that I ever beheld.

"It is evident that they take great pains to improve the race of sailors, and that they imitate our Jacks as much as possible; but with all their low-crowned hats, shirt collars coloured, and sleeves, frocks and jackets studded with anchor buttons, they are a stiff and awkward resemblance of Johnny. Mounted the steeple of the Church of St. Louis, which commands everything, and gave me a fine panoramic view of the surrounding scene.

"The peninsula of Kelerun, which forms the western coast

of the Road of Brest, was fortified by the famous Vauban. The lines are very extensive, and reminded me of La Valetta. Camaret Bay is to the S.W. of these lines, and Douarnenez Bay to the southward.

"On leaving Brest, we got an excellent pilot, who left us off the Four Rock. Saw the light on the Isle de Bas at midnight, and passed close to the spot where the *Pierre Blanche* is laid down in the chart, with five fathoms over it. The direction book says that the sea often breaks over it. *I never met a person who had sounded on this rock*, and I would suggest the necessity of ascertaining the facts relating to it; for such a spot would torment a cruiser sent to blockade Frequièr, Isle de Bas, Abreverack, &c., from the uncertainty of its situation, &c.

"We were treated with eight hours of dense fog off Roches Douvres. I found that the chart was erroneous with regard to soundings, as we had, at high water spring-tides, the depth given in the chart at low water spring-tides, *a difference of five fathoms.*"

The regular and economical supply of timber for Naval purposes occupied, as might be expected, a great deal of the Surveyor's attention while in office. For the more effectual promotion of this object, he at different times, and at his own cost—as will hereafter appear—visited the Royal forests at home, as well as forests abroad, by permission of the Board. On his return from a visit to the Forest of Dean, in the summer of 1840, he addressed the following Report:—

To the Secretary of the Admiralty.

"29th Sept. 1840.

"SIR,

"Having very lately visited the Forest of Dean, with the permission of their Lordships, I beg to offer a few remarks for the consideration of the Board.

"This forest, from the information which I was enabled to obtain, may afford some thousand trees of the *Quercus robur*, and of the two varieties, *Q. pedunculata* and *sessiflora*, which I saw growing in the two districts called the Russell Plantation and Church Hill. These being generally of good length, and equal to square about eighteen inches, may be well calculated for the purposes of 'thick stuff' and plank; and being also of straight

growth, will lose less in conversion than if applied to the purpose of framing ships. I observed that some few trees, of large sidings and good lengths, were prostrate, and about to be transferred to some merchant's yard. It appears to me very disadvantageous and impolitic for the Government to sell with one hand, and to buy with the other. Let us imagine that thick stuff and plank may be gained out of the forest in question, and that having been disposed of to a private individual, the contractor who supplies the Navy with such materials, may have purchased his timber, felled in the Queen's forests, second or third hand, paying much more than the first cost. I may add, that when the Government receive thick stuff and plank in the Dockyards, a proportion of rough timber is an indispensable penalty; thus we suffer, first, by paying an excessive price, and are, secondly, obliged to receive a quantity of rough timber of an inferior quality; the consequence of which is, that the yards are embarrassed with material, which it is always difficult to stow away, and of such form as is seldom required, and which converts most disadvantageously and expensively.

I submit that a person conversant with timber be selected to report on all the large trees fit for felling in the Russell Plantation and on Church Hill, in the Forest of Dean, with the authority and permission of the Commissioners of Woods and Forests; and that all those of good quality and of sufficient dimensions be in future reserved exclusively for the use of her Majesty's service. As there can be no doubt that timber cut with the bark on, in the winter season, when the sap is down, may be seasoned in a very much shorter period than that timber which is cut down, and, in my humble opinion, sacrificed to the bark, in the spring, I do not hesitate to recommend most strongly, that the trees in question, fit for conversion into thick stuff and plank, be purchased standing, or transferred to the Naval department, and that the bark be left on the trunk until cut down. I am not competent to say whether the branches and boughs may be peeled without affecting the trunk in the spring: they may be disposed of with the other offal when the trees are felled and squared. I have no doubt that the durability of the ships to which such thick stuff and plank are applied, will amply remunerate the public purse for the loss of the bark on the trunk. This may also prove an expedient to dispel the 'dry rot,' and would make the Naval department independent of contractors, who, from the pretended difficulty of obtaining a sufficient quantity of thick stuff and plank, keep up the price of English rough timber, which, it is well known,

costs the Government more than the Italian timber, including freight and duty; although the latter, from its being felled in the winter, its admirable curvature, ready applicability to shipbuilding purposes, and economical conversion, may be fairly estimated to be worth a third more than English oak, including the price of the bark.

"I am quite ignorant of the cause which has brought about a discontinuance of the custom of obtaining supplies for the Dockyards from the Queen's forests; but having traced former practices, I find the quantity of timber felled in these forests for the Navy, between the years 1812 and 1823, amounted to 32,337 loads.

"If I may be allowed to offer my humble opinion, I would remark, that it cannot be considered good political economy to allow the produce of the Royal forests to be disposed of piecemeal to private individuals during peace. If the timber is of the best quality, which I imagine it to be, and grown upon a soil favourable to the oak—unless the trees become what is termed 'stag-headed,' or for other reasons are found to be unfit for her Majesty's Yards—it would be far better, in my opinion, to husband our resources, and to let all that timber continue to grow which is not already deteriorating from any cause; merely felling that which may serve for thick stuff and plank, at the rate of 2,200 loads, sufficient to plank three ships of the line, per annum; and using the facilities which peace affords for procuring timber from Italy, Sardinia, the Baltic, Poland, New Zealand, America, or other foreign* countries. Thus we shall be independent of the extravagant charges of contractors, and secure against the possibility of spurious English timber and plank being introduced, and against other wasteful and extravagant expense to which the Naval department is subject, through contractors, who can always be made use of, whenever the market abroad makes it either politic, advantageous, or in any way expedient.

"I am unable to speak of the other Royal forests, but I think it very probable that they also may furnish a quota of what may be required, and, with the permission of the Board, I would volunteer my best services to examine them and to report upon their resources, when my absence from town may be admissible; having first obtained the sanction of the Commissioners of

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* Sabicu mahogany and cedar have been since imported from Cuba, at Sir W. Symonds's recommendation. Specimens of these and other woods used in shipbuilding are collected at Somerset House.

Woods and Forests, who, I would submit, might be requested to favour the success of my inspection by any facilities with which they may be inclined to furnish me.

"I could not help remarking that, among the young plantations, there existed a number of varieties in leaf and acorn which I am inclined to consider may be of a spurious kind. These, in my humble opinion, should be removed, leaving only the *Quercus robur*, the veritable English oak, and *Q. sessiflora*, the *esculus* of Virgil, which Evelyn terms the 'cut-leaved Italian oak.' It was also evident that the young plants were suffering severe injury from the fir trees, which had been planted to shelter and protect them, but had outstripped the oaks they overhung, and stunted their growth.

"W. SYMONDS."

These remarks were succeeded by a Memorandum on the best practical method of Staying or steadying a ship's Masts at the rake intended by the constructor:—

"Admiralty, Somerset House, 11th Nov. 1840.

"It has long since been my intention to bring the subject of the Lower Masts of the Navy under their Lordships' consideration; and this appears to be most particularly called for at the present moment, when there is a great demand for masts, and large spars are so very scarce and expensive.

"Since the peace, a new mode of securing the main stays of masts has become nearly general. Formerly they were set up to straps round the bowsprit, coming in between the knightheads and over the chock of the bowsprit; at present they are fitted to a crosspiece fastened to the fore part of the topsail-sheet bitts, throwing all the strain of the main mast and the fore-topsail sheets upon the forecastle beam, which is not more than nine inches square, and very insecure. If these bitts were shot away, the ship would lose her main mast, fore-topsail, and top-gallant sail. The angle of the stay is also against bracing up the main yard: with the mainsail bunted, it would be impossible.

"Notwithstanding their Lordships' order to the contrary, I have observed that it is too generally the custom to fix the lower stays with seizings, and without lanyards, which, I need not inform their Lordships, totally deprives a ship of the power to take in the slack of her stays, after stretching, in a heavy sea;

as every person knows how hazardous it would be to start the seizings, and how long it takes to secure them, while trusting to selvages and tackles.

"The worst consequence arising from this mode is, that when rigging is set up for a 'full due,' an extra quantity of the stay to allow for stretching is taken in, so that the head of the lower mast is bent forward, the belly of the mast buckling aft; and if rain follows, the warp is increased, and a tortuous crooked figure confirmed.

"It is evident that when the head of a lower mast is so stayed forward, the top-mast must be carried in the same direction; this crooked line is extended by the top-gallant mast, and when their stays are insufficiently taut, the ship becomes a spectacle; the masts over the bows producing an overpowering weight upon the ship in her pitching motion. Hence the crippled masts which have been of late years so much complained of, and which no moderate increase of diameter can prevent. I enclose some instances which I beg to offer as a proof of my assertion.

"In a long practical experience I have seen various means adopted to keep the lower masts straight. Some officers deprive the masts of the sustenance or support of the wedges, while the masts are under the operation of being secured, trusting to their own judgment as to the quantity of stay to be taken in, to allow the mast to come into its place when the shrouds and swifters are set up, and satisfied if the wedges can be introduced, even by great force, that the mast is straight.

"The most successful mode, which I have considered a 'golden rule,' when the mast is properly wedged at the rake intended, and described on the plan of the ship by the constructor, is, to affix a plumb-line to the afterpart of each lower mast-head, and to mark where the perpendicular line leads to the deck by a chalk mark, observing that the mark will alter on the deck as the ship's trim inclines her either forward or aft. After which, the mast being steadied forward by tackles (viz. the runners and tackles), and also a belly tackle, having all an equal strain, against these the shrouds may be pulled up sufficiently before the lanyards are rove full, to place the eyes of the rigging snugly over the mast-head; then cut the lanyards barely long enough to reeve full, and to allow the stays to be got into their places tautened, until the plumb comes a little before the mark. Next, reeve the lanyards full, and set up the rigging against the stays and tackles, until the plumb is a few inches abaft the mark on the deck. Set up stays and tackles until the plumb is again a few inches before the mark,

repeating the operation on shrouds and stays, until you are satisfied that the rigging and stays are sufficiently taut, and that the head of the mast is not further forward than when the Dockyard wedged it in its place.*

"A mast secured by these means will bear the severest scrutiny, in whatever point of view it is examined; but a mast crippled by the first operation will always appear deformed.

"Customs and opinions on points of seamanship are so varied and conflicting, and the prejudice of different schools so strong, that I will content myself with recommending that a positive order be given generally throughout the service, that no stays are to be fitted without proper hearts and lanyards; and that all Captains and Commanding Officers be strongly enjoined and ordered to be guided by the plumb-line, whenever the rigging is set up in smooth water.

"I would also submit, that the Master-Attendants' attention be called particularly to this subject, and that all Captains and Commanders be directed to report especially, if, for experiment or otherwise, they consider it expedient to alter the rake of the masts; in which case the plumb-line mark is to be adapted to the circumstances and noted in the log-book.

"I would remark that the tendency of masts to cripple originates from the treatment they experience at the early period of fitting out; which is always in smooth water, when the greatest pains may be taken, and where the stand of the masts may be determined to the greatest nicety. Sir Thomas Hardy has frequently extolled the method I now recommend, although he considered with me, that without the care and patience which are so necessary, it might be dangerous to inflict a fixed stay upon a wedged mast.

"When at Brest, I observed that the French engineers superintended the security of masts, and that the rigging was set up both with lanyards and screws, with the wedges in, but the operation was gradual and mathematically correct, previous to the ship being commissioned.

"I herewith enclose a copy of a general order † given on

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* See a rhyming description of this operation, in the Trip to the Black Sea, further on.

† "*General Order.*

"25th December, 1796.

"The Commander-in-chief, being convinced that a number of main masts have been crippled through want of judgment in staying, and the top-masts (*sic*), directs that in future, whenever a

the 25th of December, 1796, on this subject, by Lord St. Vincent.

"See drawings, lower masts, fore and main, of Revenge, dated Plymouth Yard, 21st October, 1830. Fore and main, of Warspite, dated Plymouth Yard, 11th April, 1833. Fore and main of Pylades, dated Plymouth Yard, June, 1839."

The ships on the Surveyor's lines, launched this year, 1840, were

Iris,	26 guns	Pembroke,	14th July.
Bittern,	12 guns, brig	Portsmouth,	18th April.
Lizard,	„	Woolwich,	7th January
Cygnet,	8 guns, brig	Woolwich,	6th April.
Ferret,	„	Plymouth,	1st June
Rapid*,	„	Portsmouth,	3rd June.
Medina,	steam-vessel, 312 h.p.,	Pembroke,	18th March.
Driver,	„ 280 „	Portsmouth,	24th December.
Polyphemus,	„ 200 „	Chatham,	28th September.
Locust,	„ 100 „	Woolwich,	18th April.
Minos,	„ 40 „	Canada (for service on the lakes).	

The *Iris*, a corvette of the Vestal class, soon went to sea under Captain Mundy, and having "thrashed along" in a gale, "behaved beautifully, not straining a rope yarn; and astonished my young officers by her weatherly qualities, going ten knots. The Admiral and every one here (Plymouth) were surprised at us." (27th November.) In 1844, she had a trial at Singapore with the French squadron. It was the expressed opinion of the French officers, beforehand, that "*la courte corvette*"

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lower mast or a top-mast is to be stayed, the after rigging be first set up sufficiently taut to prevent the head of the top-mast or lower mast being hauled too far forward; and the strictest attention is required to this order, as the Masters and boatswains, whose peculiar duty it is to stay the masts, will be made accountable for any failure therein.

"J. JERVIS."

(*Vide* TUCKER's *Life of Earl St. Vincent*, 1843.)

* An old Rapid was lost near Cape Bon in April, 1838.

might have a chance with their Sabine, 32, and Victorieuse, 28, but that nothing could sail with the Siréne, 52. The Iris however steadily forereached and weathered the frigate, beating her in a most satisfactory way.

The *Lizard*, a small vessel of 283 tons, was lost 24th July, 1843.

CHAP. VIII.

1841–2.

TRIP TO THE BLACK SEA. — CHANGES AT THE ADMIRALTY. — BUILDING OF THE COLLINGWOOD, CAMBRIAN, SPARTAN, SIREN, DEVASTATION, GEYSER, STYX, VIXEN, ETC. — VISIT TO THE NEW FOREST. — BUILDING OF THE ALBION, SUPERB, GOLIATH, CUMBERLAND, FIREBRAND, CORMORANT, AND OTHER SHIPS.

On the 22nd February, 1841, Sir William's second son, Captain T. M. C. Symonds, was posted out of the Rover, by Lord Minto, after commanding her on the North American and West Indian stations.

The months of July, August, and part of September of this year, were spent by Sir William in a Trip to the Black Sea, by steamer, and a return overland; his chief aim being, as before, to discover something useful for the service. He amused himself, as usual, by turning the whole thing into rhyme.

"EXTRACTS FROM MY REMARK BOOK.

"In the Black Sea, 1841.

"July 3rd. – Sailed from Falmouth in the Oriental, a large steamer, said to admeasure 1700 tons. One of the passengers was a Bishop Anastasius, from Mesopotamia.*

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* "A Syrian Christian he;
Unshaven, dirty, and unshorn,

"July 4th.—Strong fair wind; vessel seldom going more than eight knots per hour.

"July 5th.—A moderate gale after us; obliged to ship the dead lights, which made the ship very hot and uncomfortable, owing to the bad formation of her stern and counter. Saw Cape Finisterre this evening.

"July 6th.—Got into a strong north-east wind; passed the Burlings, and Rock of Lisbon; cabin very hot and disagreeable.

"July 7th.—Passed Cape St. Vincent, and a French frigate; wind came from the south-east; very hot and humid atmosphere.

"July 8th.—Saw Gibraltar early, and landed at eight o'clock; called on the Governor, Sir Alexander Woodford, and on Sir John Sinclair, Captain of the Port and Superintendent of Quarantine. Went on board the Thunderer, Captain Berkeley; the Jaseur brig, and Lizard steam-vessel, in the Mole. Sailed at one o'clock, P.M.

"July 9th.—Passed Cape de Gatt. In the evening it became cloudy and threatening, being about thirty miles from the coast of Barbary. A hot fiery simoom wind came over us from the land, and was exceedingly oppressive; the thermometer rose suddenly, and we could hardly bear ourselves. We thought at first that the boilers must have burst, or that the funnel had become red hot; all ran to the bows, where they still felt the insufferable heat, which lasted about five minutes. It departed as suddenly as it came, and was succeeded by a *ponente*, or west breeze.

July 10th.—Passed near Algiers at seven in the morning, going about 8½ miles per hour. Saw two small men-of-war, ship-rigged, in the Mole. Passed Galita, and saw the rocks called Canne, in the evening; by making a tortuous course round which, instead of passing inside between them and Barbary, owing to want of charts, we lost two hours. Passed Zembra in the night, the Bay of Tunis, and Cape Bon: passed Pantellaria early in the morning, with a fine fair wind, going ten knots; at seven in the evening arrived at Malta.

"He eats and drinks from night till morn,
He laughs and shouts with glee.

* * * *

He jabbers every living lingo,
Drinks both of gin and whisky stingo,—
Nothing that's good declining."—*Holiday Trips.*

"It appears to me that the excellencies and good qualities of the Oriental have been exceedingly overrated. She certainly is not a fast vessel, and if the wind had been contrary the whole way, instead of fair, our passage would have been far from an expeditious one; her quarter galleries and stern are so low that, when coaled and provisioned, they are dangerously near the water. The dead lights were shipped in moderate weather from the fear of being pooped, which made the cabin passengers very uncomfortable. The scuttles on the lower deck were rarely opened, and the ladies complained of nauseous smells and suffocation; indeed, the interior of the vessel is so ill-contrived that there is no proper partition between the large tawdry saloon and the main deck; so that all the smell of hot oil, tallow, and the disagreeables from cooking apparatus, pantries, and from the sleeping and mess-places of the crew, as well as the nausea from the places where the stock is kept, came into the saloon. There is no cabin companion, expect a scuttle in the after part, and passengers have to pass from the main deck into the cabin through all sorts of dirt and nuisance; indeed, the main deck was disgracefully dirty—a perfect Pandemonium. The berths for the crew were cramped and filthy; and the complement of men for a ship, nominally 1700 tons burden, amounted only to 14. When the sails were set they and the masts were always in danger, and the ship was frequently retarded and thrown out of her course, when it became necessary to take them in. She appears strong, and may be termed a fine ship, if it were not for the faults in her stern and counter, which I have before mentioned. The Oriental was built at Liverpool for an American packet, but I do not believe that she could have kept pace with the Great Western and Cunard's Halifax and Boston packets, owing to her want of speed when laden, and her dangerous lowness abaft.

"Malta brought back old times *; and then Valetta, with its wide and handsome stradas or streets, of freestone and lava, where you walk under the cool shade of the balcony, its high spacious houses like palaces, the handsome government buildings, the grand churches, of the Composite or Byzantine classes,

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* "In Malta I first took to naval construction;
In Malta I launched forth my maiden production—
Nancy Dawson,—then the *Pirate*, and dashing *Sal Shapes*,
All famous for larking and getting in scrapes."

and the everlasting bell-ringing.* But the sixty miles of works in the island are so extensive that they cannot be kept up intact without enormous cost.

"July 13th.—Waited on the Admiral, Sir John Ommanney, on board the Britannia; and as Messrs. Buck and Weekes were passengers in the Oriental, on their way to assist Mr. Laire to build ships of war in India, I ordered them to survey the defects complained of in the Britannia, in communication with the officers of the Dockyard, and with the sanction of the Commander-in-chief. They reported that 'they concurred in opinion with the officers of the yard, and considered the Britannia as fit for any service.' Sir John Macneil, our Envoy to Persia, arrived *viâ* Marseilles, and the Polyphemus, packet, was ordered to convey him to Trebizond. A passage was also ordered for me. The Hazard, corvette, arrived; the Howe, Britannia, Vanguard, Gorgon, Acheron, Alecto, and Prometheus, being in the harbour.

"July 14th.—Visited the Dockyard and examined the old dock attempted many years ago, which might be made available by throwing the works on each side of it further back, to gain space; or, if there is depth of water enough up to the head of the galley harbour, either a dock or a slip might be made there, which, I understood, was contemplated by Captain Brandreth. The Coradino has facilities for a slip for hauling up steam vessels; but in that case a tunnel would be necessary to give communication from the Dockyard.

"July 15th.—Called on Emir Beschir, the chief of the Druses, at St. Antonio; a fine venerable-looking old man. His followers have spoilt the garden. There is a great scarcity of water at Malta at present, Sailed from Malta at eleven o'clock at night, in the Polyphemus.

"July 16th.—A light sirocco wind; steaming on an average ten knots. Observed a corvette steering for Malta, which I supposed to be the Dido.

"July 17th.—In the afternoon, saw the Morea; at sunset, passed Cape Matapan; at 10, passed between Cerigo and Cape St. Angelo; strong hot winds, bringing sand off the land; a

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* From the house tops,

"——— in clear weather Mount Etna you spy,
The sea, and the vessels thereon;
And cool breezes feel when the sunset is nigh,
Delighted to gaze on a Claude Lorraine sky,—
At the sun, too, until he is gone."

good deal of sea, and a strong current against us. Passed Belo Paulo, and Stratonisi.*

"July 18th. — Passed Spezzia, Hydra, and Ægina. At 11.30 entered between the two stone piers of the Piræus; found a French frigate lying outside, and another in the Piræus, and a steamer, a Genoese corvette, a Russian brig, and a schooner. Went to Athens; thermometer at 90° Fahr. In Sir Edmund Lyons' company visited the Tomb of Lysicrates, the Acropolis, and the Parthenon †; the Erechtheium, lost in rubbish; the Agora, Stoa, Areopagus, Temple of Jupiter Olympus, where unmuzzled oxen were thrashing out huge stacks of wheat; Mount Anchesmus, the Temple of the Winds, Paul's Pulpit, the Temple of Theseus, and that of Eleusis, on a rocky precipice, bright from the constant friction caused by the Grecian women, who slide down it to make them happy mothers. Otho and his queen have tried it, hand in hand. Returned to the Piræus, and embarked. Sailed four hours afterwards, at 4 P.M.; passed Cape Colonna at eight o'clock, and went through the Doro Passage at midnight; strong wind, some sea and a current against us.

"July 20th.—At daylight, passing Psera, went by Mytelene and the plains of Troy, which are covered with a dwarf oak which is said to produce the vanilla dye. In the evening passed Tenedos, and anchored about two miles to the southwest of Cape Janissary, which forms the Asiatic entrance to the Dardanelles from the west.

"July 21st. — Weighed at daylight, and proceeded up the Dardanelles; communicated with Mr. Lauder, the English consul, near the New Castle of Asia; then moved on by the Old Castles of Europe and Asia, past Sestos, Abydos, and Gallipoli, through the Sea of Marmora, which was calm and smooth as glass. Anchored at ten P.M. on the European coast, about three miles from the Seven Towers of Stamboul.

"July 22nd. — Got under way early, and ran for the entrance of the Bosphorus. Here we have the first view of

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* "Pass Belo-Paulo, Stratonisi;
Off Spezzia, Hydra, still 'tis breezy;
By Ægina we fly.
And, now Piræus drawing near,
Between the entrance-pillars steer,
'Mong French and Russians lie."

† "——— that wondrous work,
How mutilated by the Turk,
And Elgin's sad example."

Constantinople, and the ten thousand beauties of the surrounding country; the palaces, islands, hills, gardens, kiosks, &c. But this gay illusion is destroyed as soon as you are ashore among the crowds of people, the carrion curs, and the filth of the narrow streets, the heat and stench of which are overpowering. We anchored in the Golden Horn, off Galata; six Turkish sail of the line and five frigates lying off the Marble Palace, looked in tolerable order, clean, their masts standing remarkably well, not crippled, like many of ours. Called on the consul; and went to stay with Yavier Pacha or Admiral Walker*, at Therapia.

"July 24th. — Called on Lord Ponsonby, the ambassador at Therapia, and dined with him. Magicienne, Captain Mitchell, lying between Therapia and Unkiar Skelessi; a French brig of war at Therapia; a Russian steamer and schooner of war at Buykderè.

"July 26th. — Went with Mr. Redhouse and Captain Mustapha, a Turkish captain, to see the ships and arsenal; there are some good docks. A three-decker, very similar to the old Commerce de Marseilles, was undergoing a thorough repair in one of them, and a frigate in another; very little timber or any sort of stores said to be in the arsenal. Saw another three-decker with a broken back; two old two-deckers with guns on their gangways; and two quite new ships fitting out, which will carry more than a hundred guns; some of them on the gangways. These ships are of a very extraordinary form, having been built by an American, who has now left the Turkish service; they have bows like American liners, overhanging, and like a bell reversed, so that a perpendicular line from the inner part of the cathead, outside the ship, would plum about ten feet from the water line; they are exceedingly ugly; their sterns, although elliptic, are ill-formed for defence. The sides, on the lower deck, abreast the ports, are thirty-one inches thick, the plank, inside and out, being thicker and of a larger scantling than the timbers; every plank is converted from a whole tree squared, and all the planking is fir. They are entirely fastened with grown knees, hooks, and crutches; in all respects they are the clumsiest pieces of mechanism I ever beheld. One was said to be built at Erekli, or Heraclea, and the other in the Sea of Marmora, on the side of Asia Minor. I was introduced to the Turkish admiral, who commanded in chief — he looked like an old Greek pirate; also the admiral who has the com-

* Now Captain Sir B. Walker, Bart., Surveyor of the Navy.

mand of the naval arsenal. He showed me the model-room, in which are the models for building two enormous three-deckers, of most extraordinary design; but there was little else in it. The water is so deep close to the wharves of the dockyard that the largest ship can lay close to it, and there is space for a great number.

I have never seen so fine a harbour altogether as is the Golden Horn. We repassed the floating bridge, which is the common passage from Tophana to Constantinople, and is planned to allow ships to pass and repass it without difficulty. Went on board Admiral Walker's flag-ship, where I received every attention. She is of peculiar construction, carries her guns well, and very heavy ones, as do all the Turks; she appears a good model, and has the name of a fast sailer. I then visited the famous Mahmoudieh, the largest ship in the world; 247 feet long, by 62 feet beam, which is two feet broader than the Queen; but owing to the extraordinary thickness of her sides, and the projection of knees and riders within board, she has certainly at least two feet less breadth of clear deck than the Queen. Upon the whole she is a very fine ship, and owing to her symmetry and proportions looks smaller than any of our first-rates. She has 120 guns, and very heavy ones on the three principal decks. I could get no return of her exact dimensions, ballast, displacement, &c., but Admiral Walker has promised to send me all particulars. I next visited the celebrated double-banked frigate, in which Admiral Walker was nearly lost, through her disproportion, crankness, and unhandiness; fortunately all her sails were split, or she would never have got back. Her length is said to be 224 feet between the perpendiculars, with 53 feet beam; her mainmast is 126 feet long; yards square in proportion. (I may here remark that all the French, Russian, and Turkish ships which I have inspected, have masts and spars *longer and of greater diameter* than our ships of similar dimensions.) She has nineteen ports of a side on her main deck, eighteen on the lower deck, armed with 42-pounders; on the upper, with heavy 32's. She looks like a long street, and the men are like shrimps on board her. She is their crack ship, and is covered with brass work and tawdry fittings; she, the Mahmoudieh, and also Walker's ship, had quarter stanchions of polished brass to support the immense armaments on the principal decks. At a distance this ship looks like an enormous corvette. If she gets into a heavy sea and bad weather, she would, in my opinion, be in great danger; her stern is very low, the transom being closer to the water than an ordinary small frigate. The old 74-gun ships

appear ridiculously small indeed compared with these enormous vessels.

"July 27th. — Visited, with Admiral Walker, the great reservoirs and 'bends' at Belgrade, about twelve miles in the country. These are valleys dammed up to retain water, which by means of pipes, is carried to Constantinople. There is also an aqueduct across the head of the valley of Buykderè. The forest of Belgrade is quite worn out, nothing being left but stunted Spanish chestnuts and underwood of oak and chestnut.*

"July 28th. — Met the Austrian Internuncio and M. Titoff, the Russian Ambassador, at Lord Ponsonby's; the latter offered me a schooner to convey me to Odessa.

"July 29th. — Rode round the walls and towers of Constantinople, which are several miles in extent and very curious; looked at the Seven Towers, all of which are ancient and extensive; examined some of the mosques, and took a peep at the Seraglio. Called on Lord Ponsonby and M. Titoff.— I may here observe that the Russian Ambassador, though he had offered me a man-of-war schooner to take me to Odessa, appeared rather anxious on the subject, as if he had political reasons for desiring that an English steamer-of-war should not circumnavigate the Black Sea.

"Lord Ponsonby had, immediately after my arrival at Constantinople, requested Captain Mitchell, of the Magicienne, the senior officer, to order me a passage in the Polyphemus, after Sir John Macneil was landed at Trebizond. In possession of a firman authorising us to visit the shores of the Black Sea, at midnight, we steamed out of the Bosphorus into the Euxine†,

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* "O'er hill and through glade,
Thick woods giving shade,
We ride where 'tis fragrant and cool;
To seraglios, mosques,
To bazaars and kiosks,—
Round the towers and walls of Stamboul."

† "At midnight we get off;—
Adieu, Mr. Titoff;
Obtrusive, I prithee, don't deem us;
For round Russia's lake,
We're determined to make
A *dètour* in our own Polyphemus;

"Which I'm sure will be sooner
By half, than your schooner,
Although 'tis a much longer round;

passing very close to the fortress on the Asiatic side, where ships are generally stopped. Although we went exceedingly near to the walls we were not hailed: all was silence. There is a lighthouse on each side of the extremes of the Bosphorus, and they lie nearly north-west and south-east of each other. The scene is enlivened by an amazing number of restless birds skimming the surface day and night. For these *ames damnées* the Turks have a superstitious reverence, believing them to be possessed by the souls of the condemned.

"July 30th.—In the morning, saw the entrance into Heraclea or Erekli, a small Turkish port in Asia Minor, from which much timber for ship-building and other purposes is derived by the Turks, and vessels are sometimes constructed there for the Ottoman navy. A tower, on a point, denotes the entrance, but as it is engulfed, we could distinguish very little. About 10 o'clock, we were close to the south shore of the Black Sea, and coasted along Asia Minor very agreeably. It is very sad that so fine a country, capable of high cultivation, should be possessed by such a nation as the Turks, when there are so many millions of industrious mortals who have scarcely a place whereon to lay their heads. The undulating coast is mountainous and very grand indeed. Hill and dale are in beautiful succession from the interior down to the sea.

In the afternoon, we got very close in shore, to reconnoitre the small port of Amestro, which has an entrance both from the eastward and from the westward: the eastern is the widest, but in the winter it must be exposed to danger, being so open to north-east winds: the western harbour appears well sheltered and safe—some small polaccas were within it, and appeared secure. I learnt from the pilot that the water is very deep, but the port is very contracted; when vessels enter, it is necessary to make a cable fast to the shore with the greatest promptitude, as the anchor would not bring the ship up in time in such deep water, and in a strong wind. This place is easily known on approaching the coast; for although there is a general sameness in its appearance, there is a red cliff discernible about two miles to the eastward of Amestro, and a high, bold, remarkable promontory, composed of white rock, interspersed with patches of verdure, standing high, and very perceptible between the red cliff and the little port.

For I want to explore,
And see something more,
Of your strictly prohibited ground."

"July 31st. — Still passing the same sort of coast as yesterday — a great deal of timber on the hills in the interior. At noon, close to the peninsula which forms the Bay of Sinope, a high, bold promontory which, at a distance, looks like an island. It is joined to the mainland by an isthmus of low land, terminated by sand, on which the town is situated, and is surrounded by a castellated wall, having towers on it. There appear to be three mosques, with minarets, in the town. The bay is very large, and open to winds from north-east to south-east. If the pilot is right, the holding-ground is good and the bottom clean, and it would contain a large fleet of men-of-war. We ran into the bay, and at once hauled out and shaped our course along the coast to the eastward. We passed close to a cape formed of low alluvial land, through which the delta of the Kizil Irmak (or Red River) discharges itself into the sea; found seven fathoms a mile from the shore. The water was much discoloured, and a nervous person would fancy himself too near the ground. We saw the land about the entrance of Samsoun.

"August 1st. — Still coasting Asia Minor; the verdure improving — more appearance of cultivation and industry on fine picturesque and promising country. Passed a cape about seventeen miles to the W.S.W. of Trebisond; and a little farther, a fort, with high walls round it, near a village on the sea-coast, where, we were informed, vessels from Trebisond moor in the winter, for greater security. This village is about seven miles from Trebisond. At about noon, we were at anchor in the Bay of Trebisond; the health-boat, and many others, came off, one having the consul, and several officers of the Persian embassy; among whom was a brother of Mr. Lalor Sheil. Finding that the plague was within seven hours, we had no communication, but landed the Ambassador, and his suite, consisting of Major Pratten, Mr. C. Scott*, and a Mr. Wilson, and baggage.

"Trebisond is prettily situated on a sloping hill: there being much wood intermixed with the buildings, it has a pleasing appearance. On a table hill above it, there is a plain, covered with turf; a point runs out towards the north, and on the east side of it is the Bay of Trebisond and anchorage. I observed, that all along this coast there is no appearance of the effect of a heavy sea, as the herbage grows near the water's edge; and I learnt at Trebisond, that although the bay is very open, there has been no instance of vessels dragging or parting, or of

* Son of Sir W. Scott, and since dead.

their being lost, as there is an undertow, and the wind does not blow home. Ten or twelve pretty Greek polaccas were discharging their cargoes in the bay. We weighed anchor at half-past four, and steered for the south point of the Crimea; disappointed at not being able to land, where one might have gained some interesting news about Circassia, from whence there is much communication at Trebisond.

"August 2nd.—Steaming to the north-west, at the rate of ten knots; at noon, in the latitude of Cape Ortegal, in Spain; at sunset, saw the tops of the hills in the Crimea, at the distance of seventy-five miles, and at daylight were off the Southern Cape, which is high and bold, and, externally, a bleak, dreary-looking coast, of abrupt and broken formation.* Passed near the lighthouse, and looked into the port of Sevastopol, *en passant;* but there was a haze which gave us but an indifferent sight of the town. The lighthouse is built on a low point, at the water's edge; we observed a bark and two large men-of-war standing out, and three large ships at anchor; a Russian brig-of-war, cruising in the offing, appeared very trim and in good order; she took no notice of our colours.

"Shaped our course for Odessa, and bungled into an anchorage at 10 P. M., making no sort of use of the facilities which render the approach to Odessa the easiest matter in the world, particularly in a steamer. I had a miserable cold from leaks, draughts, and stench of bilge water. Found riding here the Three Saints, a Russian three-decker of 120 guns, bearing the flag of Vice-

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* Having been requested by his friends to report on the real colour of the Black Sea, he says that—

"In summer calms 'tis good to steam in,
In winter it requires good seamen,
So Russians all agree.

"In winter all the squalls are black,
In black mists ships oft lose their track;
Black thunder lowers, and lightning flies,
And black clouds cover all the skies;
Dark bodings, dark anxiety,—
Black death, the sad catastrophe,—
Black deeds, too, may, a reason be,
For calling it the Blackest Sea:
When clear, the firmament is blue,
The sea reflects that colour too;
But when it overcast is seen,
The water's dark, and sometimes green."

Admiral Lazaroff, Commander-in-chief in the Black Sea; a frigate, the Flora, built after the Inconstant; an enlarged Waterwitch; a corvette, after the Orestes, enlarged; a 10-gun brig and two yachts, one of them after the Duke of Norfolk's Arundel, the other an old yacht of Admiral Greig; and several small steamers. Landed, somewhat to the consternation of the authorities.

"Went to the Lazaretto, and underwent the *spolio**; which consists in a severe fumigation, in a large iron apartment, of everything that belongs to one of a susceptible nature, and passing in a state of nudity before a surgeon. This relieves you from twenty-eight out of forty-two days' quarantine, which is the regulation when coming from Constantinople—a place never considered safe from plague. Entered the dwelling assigned to me, which is one of a line of nine or ten cottages on two sides of a square, having acacias planted before and behind them; passages for *parlatorios* are in front, and behind these lines of cottages. The *Spenditore*, who supplies the tenants with provisions, comes for verbal orders to a door wired over, opposite each cottage, and in the wall which forms the passage. The Consul-General, Mr. Yeames, called, and brought despatches for me from England; very welcome ones, dated 12th July.

"August 5th.—My letters of introduction being sealed, had been smoked, and were returned to me by a minion, who had evidently opened them; but who, in a most awkward manner, endeavoured to exculpate himself in vain, as it was clear the honourable policy and diplomacy of Russia had pried into them. My clothes having been twenty-four hours under the ordeal, were returned to me; and I was obliged to expose them to the air on lines, to divest them of the disagreeable odour which pervaded them, without success. Count Woronzoff, the Governor-General of Southern Russia, and Admiral Lazaroff called and spent an hour in conversation with me; the Consul-General also, and Mr. Mates, a banker. All that I desired in the way of facilities was promised to me by the great man, and I was offered a row that afternoon round the shipping. This I most gladly accepted; at five o'clock a boat with twenty rowers was provided for me, and with a union jack hoisted in the bow, I proceeded round the harbour, saw all the shipping, and was greeted with salutes and martial music. Altogether it

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* "This *spolio* I find is a matter of smoking;
Some vote it a nuisance, and very provoking;
But to waive a confinement of twenty-eight days,
They may smoke me a week in the sun or moon's rays."

was a great treat to a man in quarantine, and a marked compliment.

"August 8th.—Admiral Lazaroff called and settled plans for my going to Nicolaieff and to the Crimea. The Grand Duchess Elena, the Emperor's sister-in-law, went on board the Three Saints, afterwards, and was saluted by the ships dressed with flags.

"August 9th.—The squadron sailed. Saw a race between Flora and the corvettes. The Three Saints bungled with her anchor. Count Woronzoff called and we had a pleasant chat: he provided me with *Morning Posts*, and *Galignanis*, *Frankfort Gazettes*, &c., and brought me a message from the Grand Duchess. The Count had before told me that the Emperor was aware of my visit here, and that his orders from Petersburg were to show me whatever I wished to see. On this day I was allowed to change my quarters into an excellent house, which had been occupied by Lord Durham and by the Countess Woronzoff, when in quarantine.

"August 10th.—Sent letters to England, to the Admiralty, &c. The Grand Duchess and Count Woronzoff departed in a steam-boat for the Crimea. Consul-General Yeames called.

"August 11th.—General Achlechtycheff, the Lieutenant Governor and Commander-in-Chief, called on me. He appears a cunning, sly Russian; he inquired whether I had seen the Caucasus on my way hither.

"August 13th.—Had some conversation with Captain Rogers, who commands a steamer between Constantinople and Odessa; he took charge of a letter for Admiral Walker.

"August 14th.—A little Russian man-of-war brig manœuvred off the port. The Consul-General called, and was nearly caught in a heavy storm of thunder, lightning, and rain, He gave me some anecdotes of Lord Durham and some other English who were in quarantine at the same period as his Lordship.

"August 15th.—The Consul brought Colonel Douglas to speak to me, who is just arrived in company with Colonel Hay and his mother; they are all about to embark in Rogers' steamer for Constantinople; went down and saw them depart. A Russian brig of war, built after the Pilot*, arrived.

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* "A brig like the Pilot I've seen in the port,
She outsails the Flora, and ships of each sort:
How they came by her plan I am not aware,
But they get all our ships by means foul or fair.

* * *

"August 17th.—Some symptoms of freedom.

"August 18th.—Packing and preparing to depart; three officers called on me from Admiral Lazaroff with a kind note, placing a Government steamer at my disposal. The gates on the quarantine ground side were locked, and those towards the wall opened, when the Commissary entered and gave me pratique. Got into a carriage and found some stoppage at the Custom House; and then drove into the town in search of a carriage for my overland tour to the Rhine from Odessa. Took up my quarters at the hotel Richelieu; very large and grand, but filthy. Dined at the Consul-General's; the Austrian and Swedish Consuls there.

"August 19th.—Found a carriage suitable, a second-hand German caleche. The Jews are very numerous, and did all they could to hurt my bargain.

"Odessa is a large straggling town, though regularly laid out: the streets are at right angles, and at least from 100 to 120 feet wide, but the houses are low, few and far between, compared with its great extent. I call it straggling from the disconnection of the buildings; yet there is an air of grandeur, on the whole, from its vast size; with some good buildings,—particularly those which overlook the port, called the Boulevard, and which, with the Governor-General's palace, have a handsome appearance from the sea. On this side the town is approached by a very large and handsome flight of steps, considered a 'folly' of Count Woronzoff, as they are said to have cost about 30,000*l.** There is a tolerable Opera, besides other places of amusement. The dust is scarcely to be borne; it is proverbial, being impervious to vision, and dangerous. Many Polish and German families come to Odessa for bathing in the summer. There are two ports secured by moles, but neither of them very spacious. The Quarantine Harbour and the Lazaretto are to the southward of the town—the latter occupying the whole of that space which was formerly a Turkish fort, and which is

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"It matters but little, for if there be war,
We'll borrow them all, as we have done before;
And if they'll not lend them, we'll take them galore,
And send them new plans to build us some more."

* An order was actually signed by the Secretary at War, Mr. Sidney Herbert, in 1854, to attack Odessa; but the necessary force could not be spared from before Sebastopol. On the 22nd April in that year, the forts and military buildings were battered by the fleet, because the Russians had fired on a flag of truce.

described in maps and charts as a fortification. The quarantine is well and strictly regulated, and, I believe, the ordeal of the *spolio* is considered a great indulgence; it saved me four weeks' quarantine, and cost me comparatively little inconvenience. The Pratique Harbour is under the town cliff; and the Custom-house, which is considered a very rigid one, is between the Pratique and Quarantine Harbours. The road for men-of-war and ships not requiring to lay in the mole, is in the gulf, about a mile from the shore. It is open to southerly winds, admitting much sea in the winter, but the holding ground is good.

"The distance from Odessa to Nicolaieff is about eighty miles. We left for the latter in the Flora, Captain Istomin. The entrance to the Liman river is shown by a floating light vessel, which, in passing up, we left on our right hand. All the buoys on that side are white—the red buoys on the left. Ochakoff is also on the left, and appears to have no other defence than 3 guns on an exposed mud battery. On the opposite side, upon a sandy neck of land, there is a battery of about 21 guns.* The passage did not appear difficult to find. We neared and boarded a large 84-gun ship, the Selafail, 196 feet long, by 53 feet 6 inches broad; wall-sided, and not well formed, but a roomy ship; weakly-built, having no sheer; and fitted for carronades on the quarter-deck and forecastle. They were warping her through a soft mud, at the rate of a cable's length in 24 hours, she drawing 22 feet abaft; generally, there was about 21 feet of water, but in many not more than 17 feet. About 15 miles above Ochakoff, the rivers Dnieper (ancient Borysthenes) and Boug (ancient Hypanis) fall into the Liman (*i.e.* estuary). We went up the latter, and anchored for the night just below the narrowest part, which is considered dangerous in the dark.

"After rounding the peninsula upon which *Nicolaieff* extends itself in straggling disorder, we left the Boug, and

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* Kimburn, taken by the Allies, 17th Oct. 1855.

"We enter the Liman, and pass Ochakoff,
The Flora at anchor a league or two off;
On the left are the red buoys, but those which are white,
With the left bank of Liman, are passed on the right.
The lighthouse is floating, and on the right hand,
Abreast of an isthmus, a spit of low sand,
From whence, in the winter, the great Suvaroff
Marched over the ice and besieged Ochakoff.
Through Dnieper and Boug we pass to the Ingul,—
In forming the Liman their bright waters mingle."

found the Admiral's house and the Dockyard, a short distance from the mouth of the Ingul River, which is very narrow and shallow at the entrance. It has two light wooden bridges over it, opposite the arsenal, and another below it, which are removable with little trouble when a ship has to pass. The Ouriel, a new 84, similar to the Selafail, was fitting at a small detached building establishment at the mouth of the Ingul, preparing to follow the Selafail. Off this place is the road where ships anchor preparatory to going down the River, or to the Dockyard. The Dockyard is on a large space of ground, the buildings far detached from each other and very rude and very inconvenient; but there is no dock, and the slips are very imperfect, except one, on the other side of the river, from which The Twelve Apostles had recently been launched; this is well covered with an iron framing, planked and sheathed with zinc. There are two 84's building, and another about to be laid down; a frigate similar to the American Congress, of 50 guns, is ready to be fitted out; a corvette like the Daphne, and a brig like the Waterwitch, with several other small vessels, and one steam boat, were also commenced. The Model room has a great many objects of interest in it, but they are principally with a view to show the fittings of the upper or weather decks, and the established mode of rigging, leading ropes, &c.

"Went on board The Twelve Apostles, which is said to be 209 feet long, by 59 ft. 8 in. broad; she has a more rising floor than any of the old ships, and appears to be more upon my principle than any of them, while the new 84, which is to be 196 ft. long, by 57 ft. beam, is still more so, both in form and dimensions. Chernoffsky is her builder, a naval architect educated in England. They have adopted breadth of beam with spirit; indeed they borrow all they can from us, and press English engineers, architects, stonemasons, artisans, &c., whenever they can get them.* The native mechanism is indifferent, and I remarked, generally, that the Russian ships show strong symptoms of weakness; much

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* Martin, an English sail-maker; Arkroyd, a machinist, &c.

"I viewed the dockyard, town, and churches,
Conversed with Arkroyd, Martin, Burgess,
With Whitworth and with Shaw;
I complimented every one
On what was doing, what was done,
Admiring all I saw."

shrinkage was evident. There appeared to be a great deal of timber of different sorts spread over the spare ground on the opposite side of the Ingul. The mast timber is exactly similar to what we call Riga fir, and their masts are very excellent. They say it comes down the Dnieper, from the interior of Russian Poland, and from the same source whence our Riga spars are obtained. The lower masts are made in parts of lighter timber, not superior to our Canadian yellow pine. The oak comes from Bessarabia and Podolia, and is generally grown on low alluvial ground; for the most part on the banks of the Dniester. It is, therefore, of low growth and free grained, good for beams and planking; but they complain that a ship is never worth more than eight years. Walnut of large growth is obtained in this part, and it is very common to make cross-pieces and bitts from it. The elm is said to be indifferent. The ash, which differs in foliage from ours, is a tolerably good timber.

"There is a school for pilots (masters), containing 150 students; and the Hydrographer's office, like that at St. Petersburg, is extensive, employing a great many young men in uniform, who are engaged in copying charts, lithographing, and engraving them on copper. They are just completing a general chart of the Black Sea and the Bosphorus, a copy of which Admiral Lazaroff has promised to send to Captain Beaufort through Chevalier Benkhausen. Compasses, instruments, and tools are made in the Dockyard; the rope appears indifferent; the sailcloth strong and good. There is a great want of space on low ground in the yard surface at this place: and until the hill or steppe is levelled it will be very inconvenient. A wall runs across the isthmus of the peninsula on which the Dockyard and town stand, extending from the Ingul to the Boug, to assist the police to exclude those strangers who have not a passport. The Observatory stands on the highest ground in Nicolaieff, and commands a fine view of all the locality. The instruments had been removed, and the astronomer was absent, the building being under repair."

Under the guidance of the Consul-General and Admiral Lazaroff, Sir William next paid a visit to a town of enduring fame—SEBASTOPOL, Sevastopol (as he spells it), or "Sevastop'ple"—

"Pronounced, they say, like Adrianople:
Great Catherine swore to Constantine,
'All *oples* in the world be mine;

And when thou reign'st in Constantinople,
I'll change my name to Catharinople.'
But Palmerston * has served them out,
And put such schemers to the rout."

Whether or not Sir William Symonds was consulted for information, prior to the landing in the Crimea, 1854, it will be at least evident, on reading his description of Sebastopol (dated thirteen years before), that some useful hints might have been obtained from him respecting that port and its neighbourhood, in the deplorable absence of positive information with which the siege was commenced. His remarks are accompanied with a few plans of the docks, careening harbour, Balaklava harbour, &c., all of which were transmitted to the Admiralty, at the time of his visit.

"SEVASTOPOL.

"The entrance to this port lies nearly east and west; the land is low at the mouth, and gradually rises towards the head of the harbour. The leading mark into the road night and day, which will take you clear of the rocks on both sides, is a lighthouse situated high, directly over another in a lower situation, both placed on hills, at some distance beyond the head of the port. The most convenient spot to anchor is to the northward of the town, when the harbour and Dockyard creek are open; but there is plenty of room in the road above and below that situation, as it runs up a distance of three miles. There are beacons on two rocks on one side, and one on the other, in a situation which may be called the Narrows. A large fort, built of white stone, with three tiers of guns on it, is on the left or north side as you enter, and another having a round tower, which

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* This was written in 1841, after Syria had been rescued back for the Sultan, and the events which followed.

flanks both; immediately opposite on the right, in the Narrows, and further in on the right, there is an immense fort, continuing all the way in to the entrance of the harbour; I counted 70 guns in one of the tiers, and it is to have three complete tiers. There are other forts erected and being built, on the points higher up, but I was led to understand that the stone masonry of all the forts is very indifferent, and would not stand much battering.

"The harbour is a mile and a half long, and about one-third of a mile in width. From the entrance point to the head very extensive works are going on, fortifications and quays. A Moreton's slip, for hauling up steamers, is forming on the east side of the harbour; it is sixty feet wide, but only long enough to contain one vessel at a time. In the Dockyard creek wharves and magazines are making; and at the head of it, the basin and docks are proceeding rapidly, under the superintendence of Mr. Upton, an English civil engineer, who holds the rank of Colonel, and whose three sons have also employment under the Russian Government. This basin and docks will be exceedingly expensive, and their effectiveness appears to me extremely doubtful. The basin is to be approached by means of four locks, each having a lift of eight feet, so that the surface of the basin will be thirty-two feet above that of the harbour, and it will contain five docks. It is intended to fill it with fresh water, brought by a canal, twelve miles in length, from reservoirs in the country: and in times of scarcity, salt water is to be pumped up from the harbour by means of a steam engine. In both the harbour and the Dockyard creek, the water is deep close to the shore, and you may walk out of the ships as at Valetta.*

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* "The port's Valetta magnified —
An ample roadstead, where may ride
A large fleet, quite secure.

"But what they want is space on shore,
They must move mountains to get more,
And gain a level site,
For wharves, for magazines and sheers,
Workshops for joiners, engineers,
All at convenient height.

"Huge forts and barracks, rising here, —
The first are weakly built, I hear,
Though wondrous strong they look.
The basin and the docks are forming, —
They're working at them night and morning."

"The Warsaw, of 120 guns, and five old 84's, were lying in the harbour, close to the shore, lower masts and topmasts rigged. All the two-deckers appear weak and decayed, and I was informed that the dry rot has got hold of the Warsaw, and that she is also very weak; there was an old 60-gun frigate in the same state, and several broken-backed vessels of all kinds, two

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But he is more interested in the ships than what is going on ashore.

"One first-rate, and five class the second,
Are all the large ships to be reckoned
At present fit for service;
That others in the port they've got,
With broken backs, or else dry rot,
Most easy to observe is.

* * * *

"They cannot give a ship repair,
When suffering from wear and tear,
Except they heave her down.

"Short life has every Russian ship;
Quite gone when eight years off the slip:
What ruin to a nation!
Yet what they say perhaps has sense,—
They only suffer first expense,
And take the newest fashion."

Although the Russians are pronounced not so handy as our tars at reefing, &c., in "storms and change of weather," yet—

"Their masts, I swear, stand better far
Than our masts do in peace or war,
And all stand well together.

"A system somewhere they have found,
In principle and practice sound,
By which they much excel us.
These Muscovites a knack have got,
To find what's right and what is not,—
A plodding set of fellows.

"The plumb-line is the secret grand,
To make the masts like arrows stand,
Yet ne'er the wedges start;
With three alternate pulls essay;
Commence with shroud and then with stay,
To make them like a dart.

of them three-deckers, in a sort of Rotten Row. The hill between the Dockyard creek and the harbour has a fine new barrack built across it, which extends from the creek to the harbour. The front of this hill is to be cut down to the height of the wharves, to make a site for magazines, and dockyard offices and buildings. There will be much inconvenience for

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"When first you get the tackles forward,
And inches on the plumb-line borrowed,
Place eyes and tauten shroud;
Your plumb comes then abaft the line,
Which makes the head abaft incline,
To cripple not allowed.

"Reeve lanyards full, and now a pull
Of tackles and of stay;
Then watch the plumb, nor forward come,
Beyond the first essay;
Another pull, but not for full,
The plumb comes aft again.

"Nothing be sure can be done well
Unless you take some trouble;
But when a thing is once done well,
You save that trouble double;
Double, double toil and trouble,
Your rigging right, the sea may bubble.

"It always sets my teeth on edge
To see a lubber lift a wedge;
A lanyard have to every stay,
And then in storm you safely may
Take in the slack when needful;
But if you reeve your stay, and seize,
You're quite unfit to meet a breeze:
A seaman should be heedful.

"My monitors were Hardy, Strachan,
No better sailors e'er were born;
I, too, have had some practice;
But I prefer such tars to quote,
Than what opines myself to note,
In stating what the fact is.

"Then, hasten, lads, your masts to plumb,
To show where th' mark on deck would come,
And then let go the strings."

* * * * *

See "Memorandum on Staying masts," page 259.

want of space on the low ground, and timber must always be stored at a distance from the yard.

"At the head of the port, above the road, is a marsh, where an extensive alluvial bed has been formed by the freshes; the ships water from the river which passes through it into the port. I went up and landed at *Inkermann*, where a tunnel has been made through solid stone about 200 yards long, under a large cliff, in which residences and galleries were cut capable of containing many people; they were anciently habitations. Our party went in carriages beyond the Tartar village of Tchorguna*, where the most distant reservoir is formed by a 'bend' or dam, thrown across a narrow defile, between two rocky points, above which water in great quantities may be stopped. The work appeared very good and strong; all the ironwork for penstocks, &c., was brought from England. There is another reservoir which we examined, on our side of the large valley which we passed through to reach Tchorguna, not so large as the other.

"There are no iron foundries at either of the dockyards. A worm (*Teredo navalis*) at Sevastopol is very injurious to timber: I have put a specimen of it into the Model-room at Somerset House. Some of the timber, such as the Crimean, and the oak timber of the Caucasus, is said to be very good; it grows on high situations.

"A new frigate was alongside the wharf at Sevastopol, on the plan of the President, built of Crimean oak; and a corvette is also being built; but the supply of this wood is very small.

"Lines of fortifications are forming round the town, which will defend the harbour, creek, and arsenal. Sandstone of a durable quality, harder than the stone of Bath or Malta, is in great abundance; and limestone in any quantity may be obtained from the Crimea.

"On the south side of the port or road, and about two miles from the town, is a safe inlet, with a narrow entrance, which is used for careening ships, having a wharf with purchases always ready. A merchant vessel was hove out when I was there. Having no dock, the careening port must be indispensable.

"The Admiral complained that the moorings which they have procured from England, for a contracted roadstead in Circassia, have proved inefficient; owing, I believe, to their being more fitted like mooring bridle buoys than strong warp-

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* Or Tchorgouna, through which the now well-known *Tchernaya* runs.

ing buoys, as they shackle their cable to the ring, and in several instances have found themselves adrift.

"Fortunately for me all the ships were recalled to Sevastopol a day or two before my arrival, for the purpose of conveying four thousand troops to the Caucasus. I had therefore a good opportunity to visit them and to observe their general appearance and capabilities. I think, upon the whole, the Russian ships and naval establishments in the Black Sea have been overrated. The former are larger than those of the Baltic, but, not having a dock or hauling-up slip, they are much put to it when a casualty happens, and have not the means of examining and repairing them except by heaving down. But it is very remarkable how these people seem to court difficulties, and to take a circuitous mode of coming at any object. For instance, in the operation of dragging the new ships down the Liman, through some feet of soft mud in the Black Sea; and the necessity for camels to carry them over the bar of the Neva at St. Petersburg; when they might build them without difficulty at both Sevastopol and Cronstadt if they wished it.

"The bread is white and excellent, very cheap; beef 1*d.* a pound, mutton not more. The ship's soup was good, but too greasy. All hands appeared to feed out of the same bucket, dipping their spoons in in turn. The masts in the men-of-war stood better and were less crippled then ours are, although some of their stays are rove and seized without lanyards; and they all sat well upon the water but one: she was a good deal by the stern.

"The brigs built after the Pilot are accounted the best sailers, beating the Flora (after the Inconstant) and the brig (after Waterwitch) a good deal; as the Admiral informed me.

"They have some fine schooners, and, while I was at Sevastopol, the Admiral sent the Pilot out for a trial, but we did not hear the result.

"It appears that the Russians have in the Black Sea, as follows:—

"*In Commission.*

The Three Saints *	120 guns	Lying in the Road at Sevastopol.
Sultan Mahmoud	84 „	
Silistria	84 „	
The Three Fathers of the Church*	84 „	
Adrianople (no poop), considered in a doubtful state	84 „	
Gabriel*	84 „	

"Four of these are embarking troops for Circassia, under Admiral Chislikoff.

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* Thus marked, were sunk by the Russians during the great siege

"*New Ships fitting and commissioned.*

The Twelve Apostles* . . .	120 guns.	At Nicolaieff.
Selafiel*	84 „	In the shallows of the Liman.
Ouriel	84 „	In the Ingul.

"*In the harbour and with topmasts rigged and fidded.*

Warsaw	120 guns.	Rotten.
Anapa	84 „	Defective and do.
Empress Katharine . . .	84 „	„
Empress Marie*	84 „	„
Memoiré d'Eustache . . .	84 „	„
St. Jean Chrysostome . .	74 „	„
Tchesme*	84 „	Hulk.

"*Building.*

Varna*	84 guns.
Egoudié	84 „
Sisopol	84 „

"*Frigates.*

Agathpol	60 guns.	
Brailow	54 „	
Enos	44 „	
Flora	44 „	After the Inconstant.
Burgos	54 „	Rotten.
Tenedos	54 „	„
Standard	54 „	„

"*Fitting (new).*

Messembria	54 guns.
Similar to President	54 „
Similar to Congress	54 „

"General Abstract. — In commission and ready, six sail of the line and five frigates.

"Fitting and removing to Sevastopol. — Three sail of the line and five frigates.

"So that, including the Warsaw, which on all hands is allowed to have the dry rot, and appears weak and defective, they have —

"Ready — Ten sail of the line, and seven frigates.

"Building — Three sail of the line, and several smaller vessels.

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of Sebastopol, 1854–5. Out of 75 vessels (at least) of all classes, destroyed by their own hands, seventeen were line-of-battle ships. Fifteen or sixteen of the smaller ones have been since got up again, one of which is the Chersonese steamer.

"The steamers are small, none of them exceeding two 70-horse power. They have some fine brigs, after Pilot, Waterwitch, &c.; a corvette, after the Daphne, and some others; many very fine ships employed as transports. The established number of line-of-battle ships in the Black Sea is twelve sail of the line; but unserviceable ships are kept on the official list to make up the number.

"After leaving Sevastopol the Admiral took me within two cables' length of the lighthouse, which stands on a very low point at the water's edge, on the southern side of the entrance into Sevastopol, off which, I was told, there is a reef. Passing round to the southward, we saw the monastery of St. George, on the verge of a cliff. Near it, a little further east, there are facilities for landing, in the event of its being expedient to get possession of the coast to the southward of Sevastopol, and in the rear of the large forts which guard the entrance, but which are assailable from behind. A few miles from the lighthouse, and one from the monastery, a ruin is discoverable on the summit of a point rising from the sea; it is said to be an ancient piratical castle, guarding the entrance on the east side of *Balaklava Harbour*, the entrance to which is not to be discovered until it bears nearly north of you. The coast is quite clear, and you may shave the rocks. We went in as per dotted line (in the plan of the harbour).

"I was pilot to the Admiral, who, not understanding how to turn a steamer in so circumscribed a space, intended to anchor and wait until the sea breeze came in, which would place his head out of the harbour. He was rather nervous, and although he allowed me to give advice I saw that it cost him some feeling. The officers appeared surprised to find that so long a vessel might be turned in a space not wider than twice the length of the vessel.

"We then rounded the great bluff, Ahia, which appears like the step of a stair, coming from the westward before you pass the monastery of St. George, near Balaklava, but when under it, it is as vertical as the Berry Head, and three times its height. After rounding Ahia, ran along a coast shelving towards the sea, surmounted by a summit of high, bold cliff, which for ages has been breaking up and falling in large scattered masses in a variety of shapes, on a rough inclined plane, intersected by deep fissures, and marked with patches of cultivation or pretty cottages, having vineyards and wood about them; but a large portion is in a state of utter sterility.

"Count Woronzoff, the Governor, has set an example of living here, and spares no pains to persuade and encourage settlements

on this south coast of the Crimea, which is like 'the Undercliff' of the Isle of Wight, but on a very large scale, for this is continuous a distance of thirty or forty miles. We paid a flying visit to Aloofka*, the Count's beautiful seaside place; and after seeing Orianda (the 'East'), a charming seat of the present Empress Mother's, Yalta Bay (whence wine is exported), with a picturesque valley at its back, and other spots, we returned towards Odessa. At Sevastopol I embarked with the Admiral on the 26th August, after dining with Admiral Avinoff, who sailed in our service formerly, with Sir Bladen Capel. Late at night got the lights in one, and steamed out without apprehension. Arrived at Odessa on the 27th.

"The Russians appear to fail in all their attempts on Circassia, and it is evidently a most unpopular service, with both army and navy. The country, which is by some one called 'the cradle of the human race,' is described by all with whom I conversed on the subject as very beautiful, having fine timber trees, fine pasture, and a noble race of brave inhabitants; the men and women handsome, and of a superior order. In Odessa these brave people are highly appreciated, as there are many who sympathise with them, and commiserate them in their struggle with their powerful enemy, who has fortresses all along the coast. The Russians are often surprised, and frequently find themselves in a prison of their own formation."

In taking leave of Odessa, Sir William pays a strong tribute to the courtesy and kind hospitality he ex-

* "Aloofka has a castle fair—
A kind of castle in the air;
An edifice quite built at random,
With hardly ground enough to stand on;
I crave the Countess' and Count's pardon—
'Twould make a charming Vauxhall Garden.

* * * *

Such labyrinths, such alcoves and bowers,
Such rills, small lakes, and pretty flowers."

He was presented to the Grand Duchess Olga at a reception:

"Nor is the firmament more bright
Than was Aloofka on that night."

The great lady, however, fell in his opinion, because she was a "tobacco smoker," and addicted to intrigue.

perienced from Admiral Lazaroff and others, and the unprecedented facilities granted to him, by the Emperor Nicholas's orders, for viewing everything worth notice. He returned homewards at a dash across the Steppes of Bessarabia.

> "The Russian Steppes, a boundless plain—
> You may compare it with the main;
> No sea more even or more vast,
> In sky serene or overcast;
> The endless surface still surprises,
> When the sun sets and when it rises.
> The changing verdure sameness shows,
> Where'er the weary traveller goes:
> His wonder is not ecstacy—
> He's lost in listless apathy.
> The wild herds bellow, neigh, and bleat,
> Surprised a human form to meet.
> Fearing the traveller may need
> His services, the wily steed
> Rears high, and prances off with speed."

Behind such untamed cattle you tear along at a pace which sets the wheels on fire or knocks them to pieces. Passing by "sad Cracow's clustering towers," Sir William proceeded through Moravia, Austria, and Bavaria, to the Rhine, and thence to England.

On his return home he found the Government of Sir R. Peel in power, which they retained for the next five years. With the Conservatives came back some of the extreme section of the old Tory party, who had been out of office since the passing of the Reform Act, and who had always viewed the radical changes which took place at the Admiralty, simultaneously with the appointment of Sir W. Symonds, with strong dislike. He soon notes a "woful alteration indeed! The First Lord, a stranger to everything Naval. Sir George Cockburn, ruling with an imperious and overbearing hand; interfering with my duties, setting up the Master Shipwrights, and even the mechanics, in judgment upon my works; clipping my wings, and depriving me of all power and respect in

the Yards. A system of the most flagrant jobbing was now exhibited; while merit was unrewarded, a hateful partiality was shown towards those who had political influence, joined to unremitting persecution against those unfortunates who were of a different opinion from the Government. Mr. Lang having taken Sir George Cockburn * to the hustings, was loaded with favours, and his friends were put over the heads of experienced officers, who were thus annoyed and disgusted. A committee of Master Shipwrights was ordered to make a rigid survey of the Ordinary, without reference to me. They met at Woolwich, and were encouraged to pick my works to pieces. One of their first acts was to take down the stern of my Boscawen and spoil her. A committee of the School of Naval Architecture, including those who were known to have written against me under anonymous names in the public papers, assembled at Chatham. Here they drew up a treatise on Naval Architecture, inventing some deformed drawings of ships, and stealing my proportions as far as they could."

The Woolwich Committee of Shipwrights were first called together by a letter of 23rd December, in which they were directed to consider the plan of Mr. Blake's bow †; also the best forms, in general, for the stern of a ship, and for her frame above the water line. This, as the Surveyor justly complained, was something like

* Sir G. Cockburn (who left a paper behind him at his death, in 1853, complaining that the Board was too political!) stood for Greenwich, but unsuccessfully. Mr. Lang was afterwards allowed to begin a first-rate,—"the first sailing vessel he has ever attempted; 220 ft. long, 60½ ft. beam;" and which Sir William had formerly received instructions to prepare. She was lengthened 30 feet for a screw, and launched as the Royal Albert, of 121 guns; and is now Lord Lyons's flag-ship, in the Mediterranean.

† A form of bow, first tried in the Vindictive, which projected at a less angle than customary—60° instead of 73°—and allowed of using guns in chase.

inviting his subordinate officers to sit in judgment upon the works of their superior. As to the Chatham Committee, composed of members of that defunct School to which Sir G. Cockburn was naturally favourable, their orders were to make a series of drawings of men-of-war, with a statement of the methods or principles pursued in preparing them. For example, they took the Pique, Inconstant, and Castor, all 36-gun frigates, and compared them *secundum artem*. The Pique, according to their calculations, had too much stability, and too little stowage; but the Inconstant was pronounced to be the nearest to "perfection."

In a short time, under the new competitive system of this Board, they were "permitted to commence a ship of the line (Cressy), and a frigate (Thetis); while Messrs. Fincham and Blake began a frigate each (Raleigh and Leander), and all were allowed, with Mr. White, to build brigs," for the experimental trials of 1844.

The vessels launched by Sir W. Symonds this year, 1841, are the following:—

Collingwood,	80 guns	-	-	Pembroke, 17th Aug.
Cambrian,	40 „	-	-	„ 5th July.
Spartan,	26 „	-	-	Plymouth, 16th Aug.
Siren,	16 „	brig	-	Woolwich, 23rd April.
Heroine,	8 „	„	-	„ 16th Aug.
Spy,	3 „	„	-	Sheerness, 24th May.
Devastation,	st. ves.	400 h.p.	-	Woolwich, 3rd July.
Styx,	„	280	-	Sheerness, 26th Jan.
Vixen,	„	„	-	Pembroke, 4th Feb.
Geyser,	„	„	-	Pembroke, 6th April.
Growler,	„	„	-	Chatham, 20th July.
Ardent,	„	200	-	Chatham, 12th Feb.
Mohawk (iron)	„	60	-	Poplar.*

* The frame prepared by Messrs. Fairbairn, and put together in Canada, 1846, for use on the Lakes.

The *Collingwood* was a two-deck ship of the Vanguard's class, measuring 2584 tons. Captain R. Smart reports of her, in 1845–6, that she was an easy and weatherly ship, and that the result of a trial of sailing with the Daphne, Modeste, and Spy, and of a short trial with the America, was in "general favourable to the Collingwood." In 1844 she was chosen by Sir George Seymour for his flag-ship, on the Pacific station, from which she returned in July, 1848.

The *Cambrian* was well reported of by Captain H. D. Chads, between 1841 and 1845.

The *Siren* was sent to the East Indian station. Her First-Lieutenant says, in 1843, she is "without exception the finest brig I ever beheld. She carried ten weeks' water and four months' provisions, under hatches; works beautifully, always within ten points. . . . The accommodation is splendid for a brig, the quarters are most roomy." Capt. H. Edgell states in 1845-6, that she was a good sea boat, though a little uneasy from her quick motion; and that "she beat Hibernia and Tyne, and sailed equal to Inconstant." She caught an immense number of slavers on the African station.

The *Styx* was employed under Captain Vidal in surveying the coast of Africa. The *Vixen* shared in the operations against China, 1841-2. The *Devastation*, a sister ship to the Infernal, was employed in Syria, 1841, under the command of Capt. Hon. S. Carnegie.

In the autumn of 1842, Sir William paid a visit of inspection to the New Forest, and reported the result as regarded a supply of timber, in the following paper.

"Admiralty, 22nd December, 1842.

"With reference to their Lordships' minute of the 28th September, I put myself in communication with the Commissioners of Woods and Forests, and, on the 5th October, met them in the New Forest. Being provided with a guide and horse, I

proceeded on the 10th, from Brockenhurst to the principal walks which lie to the eastward of the turnpike-road between Lymington and Lyndhurst, visiting some of the young plantations of oak, and terminating that day's inspection at Stony Cross.

"On the 11th, I again proceeded to the woods north of Lyndhurst, and then through the principal walks and young plantations which lie to the westward of the turnpike road between Lyndhurst and Lymington, terminating that day's examination at Brockenhurst, when I was recalled to town on the subject of the Royal yacht. I regretted that I had not another day or two to inform myself more fully on the subject of the resources of the New Forest, and to consider more extensively its capabilities of affording a supply of timber for Naval construction.

"I was glad to find that the old and new plantations are almost exclusively composed of the two best kinds of English oak, the *Quercus pedunculata*, and *Q. sessiliflora*, the latter called 'Dormast' in the Forest.

"The Forest is said to be divided into fifteen walks, a keeper being in charge of each, and I was given to understand that there are fifteen enclosures planted with young oaks, each containing from about three to five hundred acres. As these walks and plantations are scattered promiscuously about the Forest, and were planted at a variety of periods, it is very difficult to take them in regular order, or to divide them into classes; but I will proceed to speak generally, as to the present condition of the Forest, and to offer a few remarks and observations on what I hold to be expedient in order to restore and improve it, as a resource to the Naval Department.

"In my Remarks on the Forest of Dean, dated September 29th, 1840, I stated, that the quantity of timber sent to the Dockyards between 1812 and 1823, amounted to 32,337 loads, since which all supplies have been discontinued. I perceive from the Report of the Commissioners of Land Revenue (see Act of 32nd George III., 13th February, 1792), that in comparing the contents of all the Forests, it was discovered, that in 1608, they contained, fit for Naval purposes, 234,229 loads; in 1783, only 50,455 loads. In this Report it is stated, that the quantity of land in all the Forests on which the timber belongs to the Crown, was estimated at 118,594 acres, of which 60 or 70,000 acres are fit for the growth of oak timber. Much interesting information is afforded by those Reports, and if the recommendation of the Committee had been fully carried out, the Forests would, in course of time, have yielded an important

supply of timber, and have been a valuable acquisition to the Crown, instead of a dead weight. Some draining, enclosing, and planting have of late years taken place, but on so small a scale as to bring no substantial advantage. The New Forest supplies Redbridge, Southampton, Lymington, Cowes, Eling, Buckler's Hard, and other places in its neighbourhood; and the Forest of Dean gives timber to Bristol, Chepstow, Gloucester, Newport, Cardiff, &c., all of which is considered excellent timber when cut young; and as such timber, although of small scantling (as disposed of), is much wanted in the Royal Dockyards to frame steam vessels and all descriptions of small vessels, I am at a loss to understand, why a mode should not be adopted of transferring all this available timber from the Woods and Forests to the Naval Department, notwithstanding the prejudices which exist in the Dockyards against 'Crown timber,' when overgrown and aged, as well as the interests of contractors. It had not been customary to contract for timber of small sidings until November, 1835; when, having discovered that large timber was too often converted into the frames of small ships, I applied for a supply; since which time there has been a general complaint, that the small timber supplied by the contractors is of an inferior kind, with scarcely any curvature; while all the Merchants' yards are well filled with stacks of fine small compass timber.

"I was informed that the highest price to be obtained for oak timber in the Forest is 1*s.* 10*d.* per foot; and I saw instances of timber which had been some time felled and sold, and was still on the ground, owing to the difficulty of removal.

"No Forest can, in my opinion, stand in a more convenient position for readily disposing of its productions than the New Forest; but it is certainly subject to many difficulties and drawbacks. In the first place, it wants a road to intersect its length, with ramifications leading to the water, by which the timber might be carried to a place of shipment. This is the more difficult from the undrained state of the Forest, which renders it soft and boggy, and impassable in wet seasons.

"There are contending interests which prevent the extension of plantations beyond a much too confined limit. Those who enjoy forest rights and privileges, view with an eye of jealousy and prejudice new enclosures, or any contraction of the unplanted part of the Forest, as tending to affect their interests. This Forest has to sustain an immense number of deer,—I was informed more than five thousand,—which require unenclosed space to range and feed in; and it is for them that the holly is encouraged, as a substitute for other food, in seasons

of scarcity. I am ignorant of the advantage of maintaining so many deer, and know not whether, in any manner, they repay the vast expense of their keep. I learn that they are the means of encouraging a great number of idle and dissolute persons, who exist upon the plunder of the Forest, and to whom the deer and other game are objects of cupidity. The Forest, generally, is most rankly overgrown with beech trees, which appear to be the weed of the Forest, and with the holly, thorn, and ivy, are the parasites destroying the vigour of the oak, which is drawn up and weakened by their contiguity. They are, in many parts, positively growing among the roots of the oaks, impoverishing the land, and so crowding it as to prevent the air from passing among and strengthening the oaks.

"The forest contains many fine flourishing plantations of tall healthy trees, the best of which appear to be those made by Act of 9th and 10th of William III., and which are said to contain altogether about 1022 acres, namely, Prior's Acre, Salisbury Trench, North and South Bentley, Buck Pitts, Rhinefield, Burley, and Wood Fidley. They have been long thrown open, but I could not learn that the number of trees in these plantations has been ascertained, though the information might easily be obtained by the keepers in each walk. By an Act of George III. chap. 72, it was determined to complete 6000 acres of enclosure for the growth and preservation of timber. Some few of the advanced plantations have been thinned with great advantage; but, generally speaking, they are in a crowded state, and many thousand trees, fit for thick stuff and plank, may be removed with advantage. Almost all the old oaks which have been kept for Naval purposes are becoming too old, being stag-headed; some of them would hardly relinquish their bark, and very many have been improperly deprived of their lateral branches, the effect of which has been to bring decay and injury to the very heart. This practice should, in all the forests, be prohibited. I may therefore broadly assert the necessity of a general thinning of the good and useful trees, the downfall of all the old and damaged oaks, the removal of many thousand beeches wherever they come in contact with the oaks, and the entire riddance of the thorns and hollies wherever they prevent ventilation or interfere with the oak in root or branch; this, whenever there is a road made to convey them to the waterside, would produce a large sum of money. But the most immediate and pressing measure which strikes me as positively necessary, is the extirpation of the firs which were planted originally with the young oaks, in alternate rows, to shelter the oaks, the roots of which interlace those of

the young plants, while their overgrowing heads shade them from the wind and sun. This, with constant dripping after rain, has made an evident impression on them for the worse; while those which have been, though too recently, thinned, proclaim the secret of their more healthy appearance.

"I was much struck with the extent of waste land, particularly the hilly parts on the western side of the forest, where there are many thousand acres, producing scarcely a blade of grass, but which, I feel confident, might be turned to excellent account. *Larch timber* is at present in the highest estimation for ship-building purposes, both from its buoyancy and known durability. I cannot too strongly recommend that large portions of the dryest and most hilly parts of the New Forest be enclosed and planted with this tree, to the amount of some thousand acres. It would create a shelter favourable to the oak plantations, besides improving the soil, from their deciduous quality and yearly fall of leaves. At Dunkeld, as I am informed, the land has improved from the value of 2*s.* to 22*s.* per acre, in thirty years, producing good herbage where none had grown before; and from the great demand for railways, hop-poles, &c. &c., larch would pay for thinning, and hereafter prove a great acquisition. I therefore strongly recommend that, as a preparatory measure, a good road be created from Buckler's Hard to Ashley; and that ramifications be carried to Eling and to Hythe, for readily transporting the produce of the forest to the waterside, where periodical auctions might dispose of that which the Naval department does not require. A system of draining on a large scale appears very desirable. It is highly expedient that the young plantations should be relieved immediately from the embarrassment of fir trees, brambles, weeds, &c. Much of the beech timber which interferes with the oak, might be useful in the Dockyards, and would convert into piles, wedges, patterns for castings for machinery. It may probably serve for pavements and railways; it would fetch a high price even as firewood, if shipped off in small blocks to London, or to the Royal establishments.

"I conceive that one active purveyor might serve for all the forests, to visit them periodically, for marking those trees which will convert into Naval purposes for the Dockyards. He should immediately examine the trees which it is necessary to fell for the proper thinning of the forest, as well as the aged, full-grown, and injured timber. All the hollies, thorns, and ivy interfering with the oak trees should at once be eradicated. All trees fit for timber should be sided, under the direction of the purveyor, in the forest, and all thick stuff and plank may

be sawn with advantage on the spot, which would facilitate the removal and lessen the expense. In the statements from which Sir James Graham, in 1833, determined to waive the right to select timber in the forests, I perceive a charge of 2,441*l.* was made against 668 loads of timber received from all the forests in 1832, under the heads of 'hauling and squaring the timber,' and the 'pay of purveyor.' On the face of this statement it appeared that the Naval department was paying about 2*l.* more per load for the forest than for contract timber. But it was unnecessary to pay three purveyors, whose salaries amounted to more than 840*l.* per annum. If there was a better system for carrying the timber to the waterside and reducing it in the forest, the price might have been lessened. I have never seen any Crown timber in the yards which was not aged and defective from lopping the limbs; and the principal cause for the prejudice in the yards against it is its age—when it becomes red at the butt—its want of curvature, and its wasteful conversion.

"Now that young timber is required and considered economical for the frames of steamers, &c., selections may be made for that purpose, and for thick stuff and plank, of which there is a large portion in the forest perfectly adapted; and as the price for such thick stuff and plank is at present—

"Thick stuff	9 to 10 inches, 14*l.* to 19*l.* per load;
	8 and above 4 inches, 13*l.* to 19*l.* per load.
"Plank	4 inches, 12*l.* to 19*l.* per load;
	3 inches, 11*l.* to 19*l.* per load;

and as it is obtained, as stated in my observations on Dean Forest, at the sacrifice of taking a proportion of almost useless rough timber, the subject is worthy of mature consideration. Until there is a proper road for carrying the timber to the place of shipment, little profit can arise; but I feel certain that when the means of transport shall be obtained, all the expense will be amply covered, and the Dockyards will have a large supply of thick stuff and plank. There never will be much compass timber, owing to the nature of the ground.

"My former observations on the Forest of Dean are more strongly confirmed from this inspection of the New Forest, except as regards spurious kinds of oak, on which subject more care has been taken in the selection of acorns; and I remarked that although the *Quercus pedunculata* and *Quercus sessiliflora* are often mixed, some of the plantations are exclusively of one or the other. There is so much waste land, that a portion might be set apart entirely for ash, hollies, or any other trees which

are considered necessary for browsing the deer; and in no case would I recommend any admixture of trees with the oak, except a belt of firs on the south-west side of every new plantation, to shelter them from the winds which blow from the sea.

"In concluding these remarks, it may not be considered irrelevant if I particularly refer to the Eleventh Report of the Commissioners of Land Revenue (dated 13th February, 1792), appointed to inquire into the State and Condition of the Woods and Forests, viz.:—

"Part 1. Of the state of timber in this country in former times and at present.

"Part 2. Of the laws relative to timber on private property and to the Royal Forests.

"Part 3. On the consumption of oak timber, and particularly for Naval purposes.

"Part 4. Of the supply of Naval timber and other advantages to be expected from the improvement of the Forest.

"Part 5. Of various means of lessening the waste in the consumption of Naval timber, and providing a substitute in case of scarcity of oak:—

and to the historical inquiries and topographical remarks upon the New Forest by Mr. Percival Lewis, published in 1811. Both of these works will, I think, bear me out in my suggestions as to the necessity of framing elaborate measures to render the Royal Forests useful to the country by extending the drainage, enclosures, and plantations of oak and larch generally. I have transmitted an outline of the Forest herewith, showing the direction in which I would propose a road or railway, to be formed of iron, stone, wood, or other firm material.

"The fine, still growing tree, called the Queen of the Forest, is 18 feet 2 inches in circumference, and stands in Nightwood.

"W. SYMONDS."

The mismanagement of the New Forest property, pointed out in Sir William Symonds's letter to the Admiralty, was still further exposed in a subsequent Report of a Commission under the Crown. Agreeably to their recommendation, some of the most glaring abuses were remedied; the deer were removed by an Act of 1851; and 10,000 acres are to be enclosed in addition to the 6,000 already taken in.

The ships of the Surveyor's construction launched this year, 1842, were—

Albion,	90 guns	-	Devonport,	6th Sept.
Goliath,	80 „	-	Chatham,	25th July.
Superb,	„ „	-	Pembroke,	6th Sept.
Cumberland,	70 guns	-	Chatham,	21st Oct.
Albatross,	12 guns, brig	-	Portsmouth,	28th March.
Philomel,	8 „	-	Plymouth,	28th March.
Firebrand, st. ves.,	400 h.-p.	-	Portsmouth,	5th Sept.
Cormorant, „	300 „	-	Sheerness,	29th March.
Virago, „	„ „	-	Chatham,	25th July.
Spiteful, „	280 „	-	Pembroke,	24th March.
Cherokee, „	20 „	-	Canada*,	28th Sept.
Bee, „	10 „	-	Chatham,	28th Feb.

The *Albion*†, the first of Sir W. Symonds's 90-gun ships, was launched 6th September. Her tonnage was 3110, or 6 tons more than the Queen, so that she was then the *largest ship* in the Navy. She was wholly fastened with copper and mixed metal bolts, instead of trenails and iron bolts; this brought her cost, with all her internal fittings, up to 81,349*l.* She was armed with 32-lb. guns, except twelve 68-pounders; and stored 414 tons of water, and five months' provisions. With twelve months' stores on board, her floatation "agreed to half an inch" of her constructor's calculation. Her midship port stood 6½ feet out of the water. One account states that she was "purposely hastened as an experiment; and being built of unseasoned Italian oak, which is heavier than English, she was in consequence too much immersed." Sir W. Symonds complained that she and the Vanguard "were sent to sea filled with unnecessary weights, like loaded colliers."

Captain N. Lockyer, who commanded her, 1844–6, reports that she was easy, though quick, in her motions,

* For service on the Lakes.

† There was an old Albion, which figured at the battle of Navarino.

very weatherly, and "stays like a cutter." Her inclination was only 3° to 5° in a strong breeze. With the wind a-beam, under double reefed topsails (without top-gallant sails) she went 13 knots. In a particular trial of large ships, October, 1845, she and the Queen were placed first by Sir S. Pym, and the Rodney third. Captain Lockyer states, on this occasion, that the "Albion's behaviour during the late trial cruises proved her to be a good sea-boat during the heavy gales; when, under a close-reefed main topsail, fore staysail, and main trysail, her motion was remarkably easy in the heavy sea that was then running; and I am fully persuaded that no ship could behave better. In comparison with other ships, . . they appear to roll as deep, though I think she rolls rather quicker than the St. Vincent, Queen, Trafalgar, or Rodney; perhaps owing to want of ballast. Her pitching is remarkably easy, and apparently less than other ships."

This favourable opinion is repeated in a letter of the following 9th December; but he allows that her "rolling has increased since the ballast and shot have been removed, and the ship became light in the water, from want of provisions, water, &c.; neither does she sail so well as when the thirty tons of ballast were on board. She does not jerk or strain in any way when rolling or pitching." Her stability gave her a great advantage; "she works quick, wears quick, and steers well." Before this she had been beaten by Canopus and Rodney; but in another trial, September, 1846, she beat Rodney and St. Vincent, according to Sir W. Parker's report. — See the opinion of Lord Auckland, the First Lord, respecting this fine ship, as quoted further on.

The *Superb* was of the Vanguard class. Captain (now Admiral Sir) F. Moresby, of the Canopus, writes, on 23rd October, 1845, that "Superb had a slight advantage over Canopus — 1090 yards in a seven hours' run of seventy-two miles. This was little compared with

the advantage she gained on the 21st — 2080 yards in a three hours' run of thirty-two miles." After this her performances were rather unequal; she was at times more or less leewardly than the Canopus and Rodney. On the 18th December, her Captain, A. L. Corry, reports, "In the trials which have taken place, off the wind, the Superb, on each occasion, beat all the squadron." When in trim, she "sails remarkably fast; and her motion, however heavy the sea (with a strong wind), is peculiarly buoyant and easy; her pitching remarkably so. She has good spread for her rigging; roomy decks, and broad gangways for working the ship — with the launch, barge, pinnace, and booms stowed as usual; and she will stay in a heavy sea, when very few ships would do so. . . She will not stow her weights in their assigned places, and be in trim. . . Her rolling is quick, and in proportion to Canopus, as about 3 to 2; which in light airs, with any swell whatever, renders her very unsteady; and makes it difficult to take accurate aim with her guns. . . In my opinion she would be improved by a few inches of false keel, and thirty tons of iron ballast in addition." In May, according to Commodore Sir F. Collier, she had improved, carrying (in common with Vanguard, Rodney, and Albion) in a trial on the 19th inst., such a press of sail against a strong head sea, as he had never before witnessed. She beat the Queen and the Rodney 2200 yards dead to windward, in three hours. In August, Sir W. Parker states, that "of the line of battle ships, the Superb excelled." He reports that she beat her competitors also in the trials of July, 1848.

CHAP. IX.

1843–4.

THE ROYAL YACHT LAUNCHED. — THE ROVER AND THE MODESTE. — TRIP TO ITALY. — BUILDING OF THE HELENA, VULTURE, RATTLER, ETC. — REMARKS IN THE HOUSE OF COMMONS. — SIR WILLIAM APPOINTED ON THE HARBOUR OF REFUGE COMMISSION. — BUILDING OF THE CENTURION, BOSCAWEN, AMETHYST, SAMSON, GLADIATOR, SCOURGE, RETRIBUTION, AND OTHER VESSELS. — TRIAL OF THE EXPERIMENTAL BRIGS.

From Charles Wood, Esq. M.P. *

"February 27th, 1843.

"DEAR SIR WILLIAM,

"I have read both your Tour and your Report on the New Forest with the greatest interest.

"I do not think your account of the Black Sea fleet very formidable, and I have always thought that Russia's naval power was a bugbear, and no more. I cannot be afraid of a power which has no resources beyond the existing force. Destroy her actual fleet, and where will she get a sailor? Our strength lies in the resources of the mercantile marine for recruiting our Navy, and we may defy Russia and all, in that respect, twice over.

"Your report on the New Forest shows how much there is to be done, but promises well for the supply of small timber, if it is done.

"Yours truly,
"C. WOOD."

This year, 1843, the royal steam-yacht, Victoria and Albert (now the Osborne), was launched at Pembroke by the Surveyor. She was built, decorated, and pre-

* Secretary of the Admiralty from 1835 to 1839; now the Right Hon. Sir C. Wood, Bart., and First Lord of the Admiralty.

pared for Her Majesty the Queen, in the short space of seven months from the time she was ordered, and under adverse circumstances, "every disposition to oppose me (says Sir William) being put forward. She was found fault with by the members of the Board before she was tried or finished: when complete, they were rather astonished, and came round." Her keel was laid on the Prince of Wales's birthday, 9th November, 1842; a copper box of coins of the realm being placed with due ceremony in the stern-post. Her length was 200 ft. by only 33 beam; tonnage 1034. She had a mahogany deck, joined together by Jeffrey's marine glue. The partitions were lined with thick felt to deaden the vibrations of the engines, which were contracted to the smallest possible space. All the steerage was left for the accommodation of the Queen; and the officers and men being sent forward, 100 tons of lead and water were put in at the stern to ballast the unusual weight at the head, and give the necessary stability.

The furniture was transferred from the old Royal George yacht. Her engines were by Maudslay. A patent steering apparatus was used; and Sir George Cockburn said, "he was never on board a vessel that steered better." However, at first, "it was pretended that the yacht steered wild, and I was sent out, in company with the Rattler screw * and Black Eagle, to report on her. On the first day I discovered what was the matter with the rudder; she was docked at Pembroke, and by a most trifling expedient, was made to steer perfectly."

The Queen, before visiting the French coast this year to meet Louis Philippe, made a trip in her new yacht to the West of England. Sir W. Symonds was of course highly gratified when Her Majesty called him to her

* At the Queen's subsequent visit to Tréport, the French had adopted the screw in the Archimède, commanded by Prince de Joinville. She beat all the paddle steamers.

side at Plymouth, and complimented him on the vessel's excellent qualities: "So clean!—and no noise, no motion, yet so rapid. She is not to be surpassed. We are much pleased, Sir William." The Prince also was loud in her praise.

Captain Crispin states, in a letter to Sir William, that the yacht had beaten the Black Eagle, with all the improvements made in the latter that she might excel this "truly splendid ship," as Lord Adolphus Fitzclarence styles her. The Queen and Prince Albert desired him to report his opinion to the Surveyor, "as it will make up for the unfounded abuse of the yacht." In a run of 47 miles, from Osborne to Portland Roads, with a smart gale and much sea, she distanced the Black Eagle by one hour ten minutes, behaving nobly. In very smooth water the Black Eagle was equal to her, being a vessel of much greater power. The royal yacht afterwards (1850) made a triumphant passage from Plymouth to Lisbon, a distance of 770 miles, going 12·2 knots, with a current setting against her. "Whether we take her," says Captain Crispin, "as a sea-boat, or a fast steamer, or a royal yacht, her equal is not to be found." A new and larger Victoria and Albert has since superseded the Surveyor's yacht, which, under the name of the Osborne, is said to be still one of the most comfortable vessels in the service. She is now employed as a tender to the royal yacht. There are models of both at Somerset House.

The next two letters refer to the Modeste, a sloop built by Rear-Admiral (now Admiral) Hon. G. Elliot, and the Rover.

From Rear-Admiral Elliot to the Secretary of the Admiralty.

"Blendworth, Horndean, 10th March, 1843.

"SIR,

"Her Majesty's Ship Modeste having returned to England, I beg to remind their Lordships of an application of

mine of some years' standing, that she might, when opportunity offered, have five inches more keel added to her.

"On building this ship, my offer was to construct her *with a flat floor, and one-tenth less draught of water than the Rover, to carry the same masts, sails, and weight of all descriptions.*

"The Modeste, however, with her proper weights, is floated eleven inches too high, which made so great an additional difference in their draughts as to render the trial less complete than was desirable; but being out of England at the time, I had no opportunity of applying in time to have keel added before the trials took place, in which I think I may safely say Modeste had the advantage, although the bargain of carrying equal weights was not adhered to, Rover having been allowed to leave all her ballast and some other weights behind during them. I trust the additional keel may now be allowed; it will still leave her five inches and more less than agreed on when the experiment was undertaken. I also beg leave to point out to their Lordships, that these ships are upwards of six hundred tons each, and that they only carry the same weight of armament as was successfully carried for so many years by the old 18-gun brigs of 390 tons. I consider the Modeste (and of course the Rover also) as more than equal to a complete armament of 25 cwt. guns, should their Lordships wish so to arm her; but if a further trial is to take place between these ships, they ought to carry *equal weights.*

"I have the honour to be, Sir,
"Your most obedient servant,
"GEORGE ELLIOT,
"Rear-Admiral.

"The Hon. Sidney Herbert."

Reply of Sir W. Symonds to the foregoing.

"May 31st, 1843.

"I send herewith a report from Sheerness, showing that the false keel and rudder of the Modeste are altered.

"With regard to Rear-Admiral Elliot's statement, I beg to refer their Lordships to Captain Boxer's report of the trials of the Modeste and Rover, in October and November, 1838*, wherein it will be seen that the Rover had the advantage in seven trials out of ten.

"By the official returns, I perceive that the Rover had eleven tons more water, and of provisions two weeks more than Mo-

* See Chap. V., and the Correspondence.

deste; and the degrees of inclination reported in the trial prove that, without ballast, Rover had a decided advantage in stability.

"The Captain of the Modeste was obliged to take in an addition of ballast after reaching Plymouth Sound, having had to let fly his sheets, owing to the crankness of the Modeste when she went out of harbour.

"I may be allowed to remark, that the complaint of the Rear-Admiral, that the Modeste drew eleven inches less than he had intended, arose from his own miscalculation of weights and her displacement; and I beg to observe, that by adding ballast he could have corrected her draught.

"I do not know who made the *bargain* to which he alludes, but I cannot imagine that it was ever contemplated to put all the quantity of ballast into the Rover which might prove indispensable to the Modeste.

"I was directed to bring the Rover to what I considered the best trim; and whatever did occur originated from the Board of Admiralty, at which the Earl of Minto presided.

"The Rover was built in 1832.
"The Modeste „ in 1837.

"The Modeste had the advantage of being commissioned nine months before the Rover, which gave her an advantage in working the ship; and she was docked previous to the trial on the 5th of October, 1838.*

"W. SYMONDS."

In his Journal, under date 17th April, 1843, Sir W. Symonds states:—

"At Wilton, in Lord Pembroke's Park, I measured the two largest cedars, of which there were about thirty from 10 to 19 feet in girth.

"No. 1. measured 19 ft. 7½ in.
No. 2. „ 18 „ 7½ „

They are said to be 100 years old.

"In Hatfield Park, the Earl of Salisbury has an oak which measures thirty feet in circumference; its girth being taken at one foot and at four feet from the ground. It is said to have existed eleven hundred years. It still bears some fresh foliage, and is of the *Quercus robur pedunculata* kind. It is called the Lion Oak.

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* The Eurydice, another vessel by Admiral Elliot, was launched this year. She measured 931 tons, being 141 ft. 2 in. long, by 38ft. 10. in. beam; and on trial was found deficient in stability.

"In the same park, an oak tree is celebrated from the circumstance that Queen Elizabeth was sitting under it when she received the news of Queen Mary's death. It is about eighteen feet in diameter. Both this and the Lion Oak are very hollow, but protected from further damage by a composition of chalk, pitch, and rosin.

"I also saw a singularly-handsome elm tree having a girth of eighteen feet, and also a very large hornbeam."

Sir William's annual holiday excursion this year was to Italy, to visit the timber forests of the Apennines. His official report on the Italian timber is conveyed in the following letter:—

To the Secretary of the Admiralty.

"Pursuant to their Lordships' permission of the 22nd August, I proceeded to Florence, and there putting myself in communication with Mr. Robert Elwes, the purveyor of timber (supplied from Tuscany, under contract with Mr. Balfour), I visited, on the 18th of September and the following days, the timber districts in the Apennines, viz., Borgo Lorenzo, Boscone, Pelago, Valombrosa, and the valleys in their neighbourhood; my object being to obtain information as to the resources of the country, touching a continuation of the supply of the fine curved timber which has proved so valuable; and to ascertain the reason for the wide apparent difference between that and the English oak, in weight, curvature, and hard, knotty texture.

"The districts in which this timber is procured, extend about one hundred miles to the northward and eastward of Leghorn, among the valleys of the Apennines. The trees are generally far apart in hedge-rows, and here and there grow in small clusters and patches, as if left to nature and chance.

"These valleys are situated high above the level of the sea. The soil shows nothing extraordinary in its appearance, being poor, thin, and stony; and I saw no reason for attributing the production of this timber to soil or climate. The difficulties of obtaining it are increasing yearly; but I was led to understand, that a quantity, equal to the supply in 1842 and 1843, may be calculated on for seven successive years to come.

"The provincial name for this species of oak is *querce vera.* I procured specimens of the foliage and acorns from some of the trees which were in the act of being cut down and sided, and I find that it is of that variety called *sessiliflora*, or 'Dormast,'

in our forests; but in leaf, dissimilar to the *sessiliflora* in the Forest of Dean and the New Forest. I am inclined to consider it a distinct variety from any timber tree which I have seen growing in this country. I have therefore directed Mr. Elwes to send home a quantity of acorns; and I submit, that on their arrival they may be supplied to the Board of Woods and Forests, with a recommendation that they may be introduced, on trial, in one or more of Her Majesty's forests; as it might establish an interesting truth, and perhaps prove that it is the nature of this variety to produce compass timber* in any soil or climate.

"On the 21st of September, I inspected the timber at Leghorn, referred to in Mr. Elwes' report of the 19th of August, 1843, on which my opinion, given on the 19th of October, was founded; and which has led to that timber being received at a large abatement in the price. I examined also the 'thick stuff' which was at that moment being landed from the Roman States, to be transhipped to the Dockyards in England.

"At Genoa, I communicated with Admiral Count de Viry, who showed me the store of timber in that arsenal, informing me that the Tuscan timber is in high estimation, and is considered similar in quality to that produced in the large forests in the island of Sardinia.

"I learnt, that, under certain restrictions, the British Government, through respectable agents, might obtain a supply of timber from that island; but, owing to the want of roads, it would be so difficult to transport it to the coast, that nothing short of a prospective arrangement for a continuous and large supply for years to come, could encourage any individual to risk undertaking to make roads for conveying the timber to places of shipment.

"The Count also informed me, that the French Government have a contract, and are getting a considerable supply of Sardinian timber for their navy; but that the Sardinian Government is dissatisfied with their mode of obtaining it, as the young trees are unsparingly and indiscriminately cut down, to the great deterioration of the forests.

"Mr. Brown, the British Consul at Genoa, having just returned from the Island of Sardinia, corroborated what I had learnt from Admiral de Viry.

"I regretted that the limits of my leave of absence did not permit me to go into the timber districts in the Roman States, which Mr. Coomber, the purveyor, describes as 'mountains for

* A higher price is allowed for compass (or bent) timber.

miles in extent, covered with beautiful oaks,' in the neighbourhood of Gaifana. He also states, that there is timber sufficient to continue Mr. Webster's contract, in the way it is supplied at present, for many years to come, although at a greater distance from the port of shipment.

"W. S."

"The monarch Oak, the patriarch of the trees,
Shoots rising up, and spreads by slow degrees;
Three centuries he grows, and three he stays
Supreme in state, and in three more decays."

DRYDEN.

Besides the Victoria and Albert yacht, there were launched this year, 1843, by the Surveyor, the following vessels:—

Helena, 16-gun brig	-	Pembroke, 11th July.
Sealark, 8-gun „	-	Portsmouth, 27th July.
Vulture, st.-ves., 470 h. p.	-	Pembroke, 21st Sept.
Rosamond „ 286 „	-	Woolwich, 31st May.
Rattler „ 200 „	-	Sheerness, 13th April.

The *Helena*, on her maiden trip, in June, 1844, showed herself to possess the qualities of a good ship, and was "stiff, easy, fast," without straining a ropeyarn, in a gale she met, and though crowded with baggage.

The *Rosamond* was at first called the Eclair; her greatest speed was eleven knots.

The *Rattler* was the first naval steamer tried with Smith's Screw Propeller, by the advice of Mr. Sidney Herbert, the Secretary to the Admiralty, and Mr. Corry, a member of the Board. In March, 1844, she performed ten knots in Long Reach; and the success of this important adjunct to a ship's progress was considered so complete, that a screw frigate, the Arrogant, was ordered to be built, on Mr. Fincham's lines.* The Rattler was kept

* She was launched, 1848, at Portsmouth. Mr. Fincham, Master-Shipwright at this Dockyard, was practical instructor, in laying off and building ships, to the School of Naval Architecture. He is the author of *Outlines of Shipbuilding*; and of a *History of Naval Architecture*, 1851.

at Woolwich, for the purpose of making experimental trials between the new invention and the paddle-wheel, and is now broken up. Sir W. Parker reported favourably of her, as a good look-out vessel, even under sail alone; able to keep company with the fleet in all weathers.

In February, 1844, the return of the Experimental squadron to Cork, brought a gratifying testimony to the performances of the *Albion* from the Admiral, followed by a letter of congratulation from Sir J. Graham.

From Admiral Bowles, M.P.

"Cove, Feb. 5, 1844.

"My dear Symonds,

"I am just returned from the Albion, and I cannot delay expressing my admiration of her in the strongest terms. She is quite perfect, and beyond all doubt the finest two-decker in the world. Of course you will have already heard all I could tell you about her sailing, working, steering, &c. &c. &c.; but all the officers seem most sincere and hearty in their praises of her, and so end all the cabals against you and her. I am also delighted with the Iris.

"If I had my way, I should commission the Vanguard immediately, and try her with the Albion, as the fastest two-decker in the Navy.

"My sister joins in kind remembrances to Lady Symonds with, Yours very truly,

"Wm. Bowles."

From the Right Hon. Sir James Graham, Bart., M.P.

"Whitehall, Feb. 10, 1844.

"My dear Sir William,

"Your friends have reason to rejoice in your constant triumphs over the calumnies and jealousies of your rivals; and you are quite right in considering me as one of your most sincere and constant friends. I had an early conviction that you were a man of genius and high honour, and that the greatest trust might safely be reposed in you. You have been tried by great difficulties, and in delicate circumstances, and your conduct has never failed to justify my confidence.

"Though we seldom meet, I watch your success with interest; and I rejoice in it, not only on your own account, but

because I am satisfied that the welfare of this great maritime country is thereby promoted.

"I am, always, yours very sincerely,

"J. R. G. GRAHAM.

"Captain Sir W. Symonds, R.N.

"&c. &c."

In the debate on the Navy Estimates, 26th Feb. 1844, Sir Charles Napier took occasion to say:—

"When the late Navy Board was in office, it was impossible to persuade them that things were wrong; they resisted all attempts at improvement. Any man of ability was obliged to give security to get permission to build a ship, as in the case of Sir W. Symonds. He believed that Sir W. Symonds deserved great credit for what he had done in his office of Surveyor; but still he had his crotchets, and must be controlled. Though he had built *some of the finest ships in the Navy*, still, it had to be tried whether they would stand the exigencies of a long war, blockading an enemy's port for months in all sorts of weather. He had had the command of a squadron of six ships of the line, in a heavy gale, off Alexandria, and expected he would have seen the Vanguard the weathermost ship of all, and was astonished to find that two other ships had the advantage of her. He referred to the proposed Experimental Brigs by various builders, and highly approved of the plan, as it would induce competition; and in shipbuilding this always did good. He complained of the alterations in the magazines. . . . The Queen's yacht was a bungled job, so that with very heavy engines they were compelled to ballast her with 100 tons of lead. The Albion, when built, was supposed to be a *chef d'œuvre*, superior to the Rodney, the Nile, and every other. Yet the Rodney sailed as full as she could hold, with fourteen months' provisions on board, and drew less water; her ports were further from the water than the Albion's, with less than four months' provisions on board."

Mr. Sidney Herbert allowed that the Admiralty ought not to give a monopoly to any Surveyor of the Navy. He had every respect for the genius and ability of Sir W. Symonds, but did not consider even that able individual infallible, and therefore other builders had been allowed to compete with Sir W. Symonds, and the Board had no less than *nineteen Experimental vessels* in

course of construction. The alterations in the magazines had been found necessary; and Sir C. Napier's plan (adopted in one instance) was pronounced to be exceedingly dangerous. He then read letters from Admiral Bowles (in command of the Experimental squadron of line-of-battle ships), and Mr. Northcote of the Albion, as to the character of that fine ship.

These letters * bear ample testimony to the good qualities of the Albion, which, instead of being underweighted, had, as a Parliamentary Return showed, 828 tons of water, provisions, and stores (enough for twelve months) on board, while the Rodney had 814½ tons. The attack on the Vanguard's performances at the blockade of Alexandria, drew the following letter from her then Commander.

From Captain F. Hutton, R.N.

"Sundorne Castle, Shrewsbury, February 29th, 1844.

"My dear Sir,

"On perusing the morning papers on the 27th, in which are reported the debates on the Navy estimates, although silence perhaps would be the most dignified manner to refute the absurd and crude notions brought forward by certain members, still there is one statement mentioned by Sir Charles Napier I cannot silently pass, without stating to you the facts, and am sure my late excellent Captain † will forgive his subordinate in thus coming forward, as I know he will be equally anxious, should the observations meet his eye, to contradict such palpable errors. The Commodore states his astonishment at finding two ships with more weatherly qualities than the Vanguard. To say the least of it, I know no greater deviation from facts, and it could only be brought forward because no one present was able to contradict so palpable a misstatement. We were sailing in two lines,

Powerful (with the Commodore's pendant.)	
Rodney.	Revenge.
Cambridge.	Vanguard.
	Ganges;

and stretched off from Alexandria, under close-reefed topsails

* See p. 311, and the Correspondence, under "Albion."
† Now Admiral Sir David Dunn.

and courses, reduced, by the morning, to main topsails and storm staysails; during this time, and the following day, always limiting our sail to keep our station with the Commodore. Our next ahead, the Revenge, could not keep hers; and was on our lee quarter about five miles. Rodney, on our weather quarter, which ship ought to have been six points on our weather bow. Cambridge, and Ganges, out of sight to leeward. I challenge a contradiction of these facts — and if we had been at any time half a mile to windward of the position we always maintained during that gale, I have no doubt our signal would have been made to resume our station: thus I can assure you we kept our place. I am, indeed, astonished to find a Naval officer, in command of a squadron, speaking of ships not possessing weatherly qualities. Did that officer make the signal for ships to do their best? No! Perhaps the knowledge of the Vanguard's capabilities was the cause of such omission in a heavy gale of wind, and keeping us in our position in line at the same time in this gale and sea, which the Vanguard breasted without straining a yarn, or opening a seam. Of these boasted weatherly ships, one carried away her fore channels with imminent danger of losing her foremast — the other lost a quarter boat, and made the signal for permission to bear up: — 'Masts being in danger, wish to set lower rigging up.' These were the two ships to windward. The one, we were keeping our position with, as senior officer, whom we dared not approach; and the Rodney, which should have been six points on our weather bow, remained on our quarter with all her mishaps. Therefore, I do state, we were the only ship that kept our station; the Powerful being the pivot, and as senior officer, could not of course be out of hers.

"Observations such as have been made I know pass *you* light as air, but they are cruel to the public; as the many feats performed by the Vanguard, in both commissions, when all other ships have failed, are too well known to the sensible portion of the naval community. I trust you will excuse this interruption on your multifarious pursuits, but it is with the most profound contempt that I find debates in Parliament disgraced by such statements, without the power of public reply; and that all your projected ships may prove a Vanguard, is the sincere wish of,

"Yours very faithfully,

"FREDERICK HUTTON.

"Captain Sir W. Symonds, R.N."

At a later date, 1st March, Sir G. Cockburn, the

first Naval Lord, said, in reply to a random speech from Captain Rous, in the House of the Commons, that he "considered Sir W. Symonds to be a man to whom the service was very much indebted, and who had made great improvements in the build of ships; but he did not think his ships were perfect; and he knew when persons took up a system they became too exclusively attached to it." He then stated the projects which were in contemplation for *encouraging* the Surveyor in his patriotic endeavours.

All the Master Shipwrights had been called together at Woolwich, to find out the best mode of building strong and efficient ships, and between them had got what appeared to him to be "perfection" in the construction of sterns. Three "native artists," who had gained the highest prizes in mathematics, and written the best essays, were sent to Chatham, to meet and examine the building of ships and propose the proper lines for each class. They had handed in (the year before this, 1843) a very elaborate statement, "giving reasons why *every ship had faults*, and why *perfection had not been yet obtained*." These gentlemen were now to build a ship themselves, "in order to show whether they could not produce the *best ship in the world!*" There is really a touch of humour in this declaration, which makes one smile, — especially when the rather exalted pretensions of the Scientific Committee are measured by their actual performances. The Espiègle, their most finished piece of handiwork, stood third in the trial of Experimented brigs at the end of this year; and the Thetis, which they afterwards built, was, considering all things, an egregious failure.*

* Speaking of this Committee, Mr. Edye — a very competent judge — says: "In two or three cases, they may have given a theoretical report on drawings; but I am not aware of any benefit that has yet been derived, or any *science that has been displayed* by them." — *Evidence* before *Committee on Naval Estimates*, 1847-8.

On the 16th April, 1844, Sir William was nominated a member of the Commission for investigating the subject of Harbours of Refuge in the Channel; his colleagues being Admiral Sir T. B. Martin (chairman), Sir H. Douglas, Capt. Washington, Col. Brandreth, &c. The commission prosecuted their inquiries, and a majority came to the conclusion that Dover, Seaford, (in the neighbourhood of Beachey Head) and Portland, offered the most eligible sites for the purpose. From this, Sir William Symonds, as well as Sir Howard Douglas, in part dissented. They strongly objected to the nature and magnitude of the works contemplated at Dover; while Sir William considered, that Dungeness was for many reasons preferable for a harbour. His objections are stated in a letter to the secretary, dated 16th July, 1844. He thought a large enclosed area at Dover was unnecessary, as only steamers, packets, and straggling merchant ships would use it. The silt would choke it up, to check which it should at least have E. and W. entrances, to allow the tide to scour it; whereas the close harbour recommended by the commission, had an entrance only on the S. front, which would render it difficult of access, contrary to the instructions of the Treasury, that it should be accessible in stress of weather at all times of tide. He was against an upright wall in the open sea, as proposed, remembering the appearance of a N.E. *gregale* on the perpendicular rocks at the mouth of Malta harbour; and he estimated that if the pier were built of brick or concrete (in place of stone) for a distance of 4800 yards, the harbour would cost six or seven millions sterling, enough to give 80 sail of the line to the Navy.

The commission was dissolved on the 15th August following, and reconstructed 10th October, 1845. Sir William continued stedfast in his opposition to Dover, to which place, however, the new commission adhered in their final Report; and as he was denied

the privilege of recording his sentiments in this document, he thought it right to address the Prime Minister (who had selected him), and other official persons, on this subject. The letters are given, at one view, below: —

To the Secretary of the Commission on Harbours of Refuge.

"4, Somerset Place, 16th July, 1844.

"SIR,

"I have had the honour to receive the Report to the Right Hon. the Commissioners of Her Majesty's Treasury, and have perused it carefully. I beg that you will inform the chairman, that I can by no means concur in recommending the formation of a large close harbour at Dover, in the face of what I consider the strongest and most disinterested part of the evidence, which, in my humble opinion, has been too hastily digested; as I conceive that it bore testimony to the difficulties, as to its construction, both from position and a combination of local circumstances, which appear to me to be nearly insurmountable, and full of risk if such a work could ever be completed.

"As a seaman, I feel convinced that many vessels would be damaged, and even destroyed, in attempting to enter a harbour so formed; where the holding ground is only partially good, as stated by several Dover and Deal pilots, as well as other strong evidence; and I feel assured that after a short experience, it would be avoided as a second 'Scylla,' by vessels which would fly to Dungeness and the Downs for refuge and shelter, according to the wind.

"My conviction is so strong on this subject, that I cannot conscientiously join in recommending the country to entertain so large a work at Dover, and thereby sink millions to no purpose.

"Moreover, I am of opinion, that Dover is yet worthy of much improvement, for the shelter of steam vessels of war, Her Majesty's Packets, and casual vessels which may be bound into the harbour, of sufficient extent to enclose only the good holding ground, as shown in the proposal which I laid before the commission on the 5th instant.

"I am cordial in agreeing with the other members of the commission, that Seaford and Portland are important situations in the Channel and worthy of breakwater harbours of refuge,— and I also consider that there are other intermediate spots

which might favour a proper defence of the coast in time of war; but from my own practical experience in the narrows, during the war, and the great bulk of evidence in the minutes now before me,—among which I may mention that of the Duke of Wellington, before the Shipwreck Committee,—I am convinced that Dungeness is the most eligible situation in the Channel; embracing all the terms of the instruction conveyed to the commission by the Treasury minute.

"I therefore, for my own justification, beg leave to request my protest may be recorded in the minutes, and included in the report, against the recommendation of Dover; reserving all the explanation which I should be prepared to give if called upon to support my opinions.

"I have, &c.

"WILLIAM SYMONDS."

To the Chairman of the Commission.

"Somerset House, Jan. 22nd, 1846.

"SIR,

"Having given the most attentive consideration to the various plans, reports, proposals, and statements which have been discussed as evidence, before the reconstructed Commission on Harbours of Refuge, assembled on the 10th of last November, and subsequently; and having yesterday heard the decision of the majority of the commission, in the report about to be laid before the meeting; I consider that any further attendance on my part must be unnecessary, as I feel called upon, by my duty to the public, to express my unqualified dissent from the substance of that report, which I do not consider is borne out by the evidence of practical men; and I have the honour to enclose my views on the several subjects therein discussed. I regret that a letter which I had the honour to address to you on the 16th of July, 1844, does not appear in the Appendix, where I perceive communications conveying the opinions and ideas of other members of the commission.

"I beg leave to enclose a copy of that letter, which I trust, with the explanation of my motives for dissenting from the majority of opinions, will now, for my justification, be submitted to the public; as I conceive, that neither isolated opinions, nor any evidence on a subject of such vast weight and importance, should be suppressed or disguised, but laid before the Govern-

ment without partiality. And in making this application to you, sir, I feel that I am acting in the most straightforward and courteous manner towards my colleagues.

"I have the honour to be, Sir,
"Your most obedient humble servant,
"W. SYMONDS.

"To Admiral Sir T. B. Martin, G.C.B.
Chairman, &c. &c. &c."

To the Prime Minister.

"23rd Jan. 1846.

"SIR,

"In the month of March, 1844, you did me the honour to include me as one of the Commission on the subject of Harbours of Refuge, which commission was dissolved on the 15th of August following, and being reconstructed, the members again assembled on the 10th of last October.

"I have endeavoured to do all the justice in my power to this weighty subject, down to the conclusion of the Report, which the majority of my colleagues are about to sign and lay before the Treasury; but as I consider the decision is wild and visionary, and not borne out by substantial evidence, I feel conscientiously called upon, both from a sense of duty to the Minister who appointed me, and to the public, to recommend Her Majesty's Government to pause before they undertake so hazardous and expensive an experiment. In laying my dissent before the chairman, I have given full explanation as to my motives, and I trust that what I have ventured to express will not be disdained, but considered with other evidence, and be impartially weighed and appreciated.

"I have the honour to remain, Sir,
"Your most faithful and obedient servant,
"W. SYMONDS.

"To the Right Hon. Sir R. Peel, Bart. M.P.
&c. &c. &c."

To the Secretary of the Navy.

"Somerset Place, Jan. 24th, 1846.

"SIR,

"With reference to your letter of the 10th of April, 1844, signifying to me that the Lords Commissioners of the

Treasury had been pleased to appoint me as 'a member of the Commission on Harbours of Refuge in the Channel,' I have the honour to state, for their Lordships' information, that I have, with undeviating attention, assisted at that commission until the close of the report, which, from motives purely conscientious, I have refused to sign; and as the chairman, in the case of Sir Howard Douglas, has declined to record the dissent and explanation of individual members, I feel it my duty to forward copies of my letter, and the explanations which I deemed it expedient to address to him, which I request may be laid before my Lords Commissioners of Her Majesty's Treasury; as I consider that all testimony which throws light upon a matter of such importance should be made known to Her Majesty's Government.

"My inexperience in such matters will, I trust, plead my excuse if I am out of order in the course which I have deemed it my duty to take.

"I have the honour to be, Sir,
"Your most obedient humble servant,
"W. SYMONDS.

"C. E. Trevelyan, Esq.
&c. &c. &c."

A trial which took place, in the fall of the year, between the line-of-battle ships, Queen*, Albion, St. Vincent, Caledonia, under Admiral Bowles, turned out, according to his report of 20th November, 1844, rather unfavourably to the Queen, much to the surprise of those who knew her former good qualities. The Albion proved herself to be a fast-sailing ship, "very stiff under canvas, and looking remarkably well, though tried to the greatest disadvantage." The Queen was equal to the Caledonia, but both were declared to be inferior to the St. Vincent. This sudden change was found to arise from the Queen's slack helm. The comparative stability of the Surveyor's ships was, however, as great as ever, their heel being only one-half that of the St. Vincent and Caledonia; and "it is remarkable," the Admiral said, "how well the

* Commanded by Capt. W. F. Martin, R.N.

Queen stays under difficult circumstances." This disadvantage was but temporary, as she completely regained her character, under Sir Samuel Pym.

From Rear-Admiral Dundas. *

"Nice, December 10, 1844.

"MY DEAR SYMONDS,

"The newspapers, English and French, announce the return of the Squadron under Admiral Bowles; and there are various observations on the ships' sailing qualities, &c., evidently written in a bad spirit against you—who, I will always maintain, have built better men-of-war than any English or foreign surveyor ever did before! We shall have some questions to put; . . . . and I write now to assure you of my warm and cordial support, both in and out of the House of Commons.

"I shall be in London about the 1st of February, intending to leave my wife and daughter here. I see winter set in, and the mountains covered with snow, but in this place all is summer, and a more delicious climate cannot be. Already my invalid, Mrs. Dundas, is a new person and ten years younger. I hope Lady Symonds is better.

"Believe me always, yours faithfully,

"J. D. DUNDAS.

"Capt. Sir William Symonds,
"&c. &c. &c."

The vessels launched this year, 1844, by Sir W. Symonds were, the

Centurion,	80 guns,	-	Pembroke, 2nd May.
Boscawen,	70 guns,	-	Woolwich, 3rd April.
Juno,	26 guns,	-	Pembroke, 1st July.
Amethyst,	„	-	Plymouth, 7th Dec.
Flying Fish,	12 guns, brig,		Pembroke, 2nd April.
Scourge, steam vessel,		620 h. p.	Portsmouth, 9th Nov.
Retribution,	„	600 „	Chatham, 2nd July.
Sampson,	„	450 „	Woolwich, 1st Oct.
Gladiator,	„	430 „	„ 15th Oct.
Jackal, (iron)	„	150 „	Glasgow.
Lizard	„ „	150 „	„

* Now Admiral Sir J. D. Dundas, K.C.B., late Commander-in-Chief in the Mediterranean.

The *Centurion* (now a screw) was the fifth ship built of the Vanguard class, and measured 2590 tons. This is a favourite name in the service. The next preceding one, a ship of 1044 tons, built 1812, was lost in 1824.*

The *Boscawen*, of 2213 tons, was sister to the Cumberland; 180 feet long, by 54 feet beam, and 22 feet 4 inches deep in hold. She was first laid down in 1814 as a 74; changed to an 80 in 1819; and in 1834 to a 70, her frame being taken to pieces and reconstructed. In 1840, part of the bow was taken down and sharpened; and her stern was afterwards altered (a second time) according to the recommendation of the Committee of Shipwrights of 1842. Her copper was fitted with Davy's protectors. She appears to have been kept to make experiments upon; but has survived them all, and is now flag-ship in the West Indies.

The *Amethyst* and *Juno* are 923 tons each.

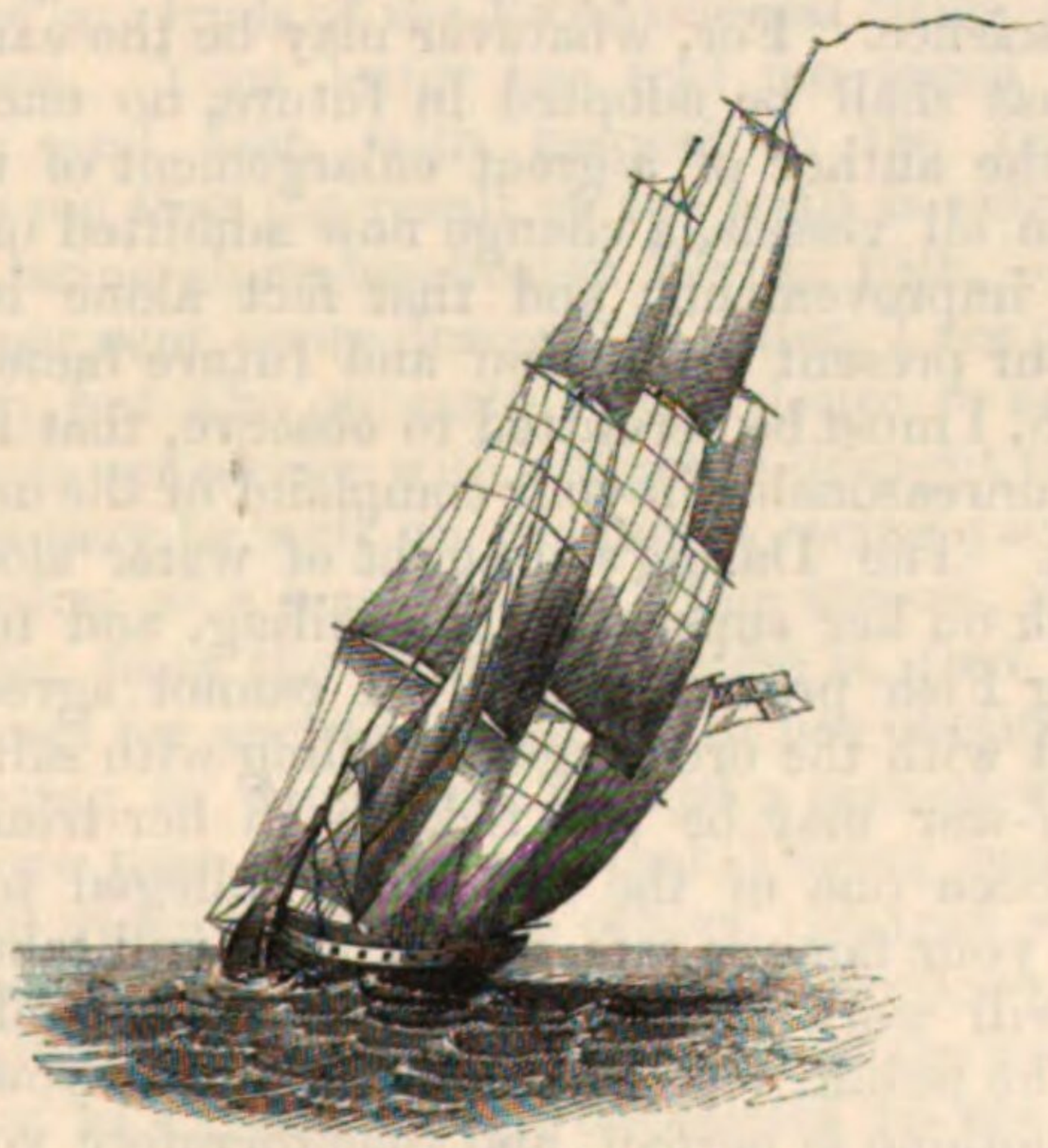
The sister steam-vessels, *Jackal* and *Lizard*, were the first built of iron, for the Navy, at Napier's yard. A former Lizard had been unfortunately run down in the night of 25th July, 1843, by the French steamer Véloce, twenty-five miles east of Gibraltar, on her way to Barcelona; crew saved. The building of steamers for the Navy became more frequent about this time; the horse-power having increased from 13,790 in 1841 to 26,634 in 1844.

The *Flying Fish*, of 445 tons, was built by the Surveyor as one of the Experimental Brigs which had been ordered by the Admiralty, from different constructors, expressly to be tried against each other. His com-

* There is a model of Anson's Centurion at Greenwich Hospital: her figure head stands in one of its wards. When Anson touched at Tinian, 1742, to refresh, after his disastrous run across the Pacific, the Centurion lost her anchor there. It was fished up again in 1834, by a whaler, not much the worse for its long immersion, though covered with rust, and the wooden stock gone. Instead of bringing this relic home, the captain gave it away to the natives of the island.

petitors were the Daring, 12 guns, 426 tons, by Mr. White, of Cowes; Espiègle, 12 guns, 443 tons, by Messrs. Read, Chatfield, and Creuze, of the defunct Naval College; Mutine, 12 guns, by Mr. Fincham, of Chatham Dockyard; Osprey, 12 guns, by Mr. Blake, of Portsmouth Dockyard; and the Cruizer, 16 guns, by Sir W. Rule, formerly Surveyor of the Navy.*

Sir William's little Pantaloon, and Mr. White's Water-witch, took part in the trials, which were conducted by Captain A. L. Corry, who, at the end of about a dozen trials, reported (9th December, 1844) Daring to be best on the whole, and Flying Fish next; the great draught† of the former giving her a special advantage with the wind and sea a-beam. The old Navy Board's Cruizer was "nowhere."



An Experimental Heel.

* Their dimensions were:—

	Ft.	In.		Ft.	In.
Flying Fish (Commander R. Harris)	103	1	by	32	1½
Daring (Com. H. J. Matson) -	104	0	„	31	4
Espiègle (Com. T. P. Thompson) -	104	8	„	31	9⅛
Mutine (Com. R. B. Crawford) -	101	11½	„	31	11
Osprey (Com. F. Patten) - -	101	1	„	31	10
Cruizer (Com. E. G. Fanshawe) -					

† Draught of Daring, (aft) 16 ft. 7 in.; of Flying Fish, 14 ft. 7 in.; of Espiègle, 16 ft. 2 in.

During subsequent trials, in March, 1845, Commander Harris says, that Flying Fish was a "most easy vessel in a heavy head sea, and it would be impossible to over-press her." She has since been converted into a screw. The secret of the Daring's success is explained in the following letter.

*From the Earl of Minto.**

"Minto, December 18th, 1844.

"DEAR SIR WILLIAM SYMONDS,

"You only do me justice in believing that I take the warmest and most lively interest in the progress of improvement in shipbuilding, to which you yourself have so especially contributed; and it is my firm conviction that the country is *deeply* and lastingly indebted to your individual genius and exertions for a material extension and application of some important principles in that science. For, whatever may be the exact scale of proportions that shall be adopted in future, no one can deny that you are the author of a great enlargement of the proportion of *beam* in all vessels, a change now admitted on all hands to be a vast improvement; and that fact alone is sufficient to establish your present reputation and future fame. Having said thus much, I must be permitted to observe, that I think you are somewhat unreasonable in your complaint of the unfairness of the late trials. The Daring's draught of water alone is a decided drawback on her superiority in sailing, and to *her* alone has the Flying Fish proved second. I cannot agree with you in finding fault with the order against filling with salt water. I think a man-of-war may be too ticklish in her trim, and this has hitherto been one of the objections alleged to all your vessels. But your fame is safe, and if you will take a friend's advice, you will work away, heedless of petty and annoying jealousies. The public feel their obligations to you, but they also feel that nothing is perfect, and that therefore your system, like all others, may be capable of improvement.

"The Espiègle and Mutine seem to be failures. With regard to the Queen, I acknowledge I am more surprised by the result of her cruise, than by that of the Brigs, but all the alterations as to ballast, &c., in our old three-deckers are justly corroborative of the correctness of the principles on which you have founded your system. *No future ship will be built on the lines of the* St.

* Lord Minto was First Lord of the Admiralty from 1835 to 1841.

Vincent, *or the* Howe, *but many will on those of the* Queen, with such modifications and alterations as experience shall suggest. I should much like to hear what your son says, as he was on board the Flying Fish, and I shall anxiously await Admiral Bowles's report.

"Yours, &c.

"MINTO."

From the same.

"Minto, 19th December, 1844.

"DEAR SYMONDS,

"I really feel much obliged to you for your letter of the 14th, and its enclosures. You know the interest that I take in all that regards the efficiency and improvement of our navy, and more particularly in whatever concerns yourself or your ships; and I have been extremely anxious for more information than I had been able to obtain, of many particulars attending the late trials of the Experimental Brigs, and the line-of-battle ships. Your letter has told me much that I wanted to know; and first, with respect to the Brigs. It really appears to me that the result of the trials is extremely to your credit. Daring alone has beaten Flying Fish,— and with from 16 to 17 per cent. more draught of water, I see nothing to boast of in that; but who on earth would desire to see 12-gun brigs brought into our service with a frigate's draught of water? Such expedients may be well to produce a racing yacht, but destroy half the value of a man-of-war. The utmost, therefore, that I should infer from the Daring's success is, that Mr. White has built a vessel for yacht service, which has obtained some advantage in going to windward, against a man-of-war. And if it should prove true, as it is said, that Daring had more cloth in her foresail given her than the others, the trial was unfair; and some abatement must be made of her superiority.

"But after all, suppose that Daring had drawn to an inch the same water as Flying Fish, what would be the inference, but that one vessel, constructed on *your principles*, had by some slight improvement, such as experience must continually suggest to ingenious men, been made to beat another vessel also constructed on your principles? for I remember, when I saw the models of these Experimental Brigs, being struck with the appearance, which some of them bore, of being copies of you, at least in the principal characteristics of your system. Now, the question we have had so much debated of late years, which has been made the foundation of all the attacks upon you, has been, whether the principles of construction introduced by you be good or bad;

better or worse than those formerly in use, and taught, and still professed, by members of the old School of Naval Architecture. This has been the real question at issue, on which the clamour was raised by the scientific, against what is called the intuitive, school of shipbuilding. And there was no question as to the possibility of constructing an individual ship on your principles better than any that you had yet produced, because the mere admission of such a contest must have implied the adoption of the principles introduced by you, and on which your reputation is established. Well, then, what has been the result of these trials? That you have signally defeated, not only one, but the whole collective skill and science of the School of Architecture and shipwright officers; and that the only man who has successfully contended with you, is a yacht builder at Cowes, *working upon your own system.* As regards the Brigs, therefore, I consider the result of the trials as very decidedly favourable to you; and I have no doubt that when you have corrected whatever may be amiss in the position of your brig's masts, or such other cause as you may discover for her bad steering and over-weather helm, and have given her such ballast as may enable her to keep a better trim, as she expends her water and provisions, you will push Daring much harder, without resorting to additional false keel, and increasing your draught of water inconveniently for service.

"With respect to the Queen, I confess myself quite unable to understand the unexpected result of her trials with the St. Vincent, and I shall certainly be surprised should further trials, fairly conducted, confirm the superiority of the latter in those qualities in which she had the advantage. When we get Bowles's report, for which I am most impatient, the comparative qualities of the two ships in all respects, as efficient men-of-war, will be better seen; and, knowing how much turns upon good jockeyship in all such contests, I think you have quite a right to expect that on her next trials, the Queen will be sent out under officers capable of doing justice to her, and anxious for success.

"We all know that you have a powerful enemy to contend with in authority over you, and that there are many jealous rivals bent upon running you down, but you have strength in the undeniable merit of your works, more than sufficient to enable you to set your assailants at defiance. In doing this, I would, if I were you, wholly refrain from any attack upon my adversaries' conduct, confining myself entirely to what regards the ships, and not their constructors. Nothing ever was, or ever will be, found absolutely perfect in this world; and I should like to see you keenly seeking for any defects in your ships, with a view to their improvement. Every one knows that the utmost perfection

in one quality can only be obtained, in some degree, at the expense of some other quality in a ship, and in this sense, therefore, one may have too much of a good thing. I am sure you will take what I am now saying in good part, and as proceeding wholly from my regard for yourself, and my desire to see your works maintain their credit against all your detractors. I could write a great deal more upon these, as well as other, subjects touched upon in your letter, but I hope to have an opportunity of chatting over all such matters with you in the beginning of February, when I shall be in town for a week or ten days, for the meeting of Parliament.

"I presume that the reports of the trials, with diagrams, will be made public; if so, pray try to procure them for me.

"Believe me, ever,

"Dear Symonds,

"Yours truly,

"MINTO."

These forcible and judicious remarks need no comment. It was easy for the Surveyor's imitators, after he had once taught them his trick of fence, to go away and rival, or even beat, their master; but this will not rob him of a single particle of his fair fame, in the opinion of the discerning. Mr. White, being a private builder, was less restricted than others by etiquette, or whatever it might be, from borrowing the beam and fine bottom of the Surveyor, in the Daring, as he had borrowed the dimensions of the Pantaloon; and, that he and others fully profited by the good example thrown out to them, is evident, upon contrasting the proportions of the brigs built by them now, with the vessels by the same builders in the trial of 1826.

CHAP. XI.

1845–6.

SIR C. NAPIER'S MOTION ON THE NAVY. — THE DIDO. — VISIT TO CLIPSTONE WOODS. — EXPERIMENTAL SQUADRON OF LINE-OF-BATTLE SHIPS. — MEMORANDUM ON THE DOCKYARDS. — BUILDING OF THE ACTIVE, ALARM, AVENGER, CENTAUR, FURY, DRAGON, INFLEXIBLE, ETC. — CHANGES AT THE ADMIRALTY. — SQUADRON OF EVOLUTION. — COMMITTEE OF REFERENCE. — ACCIDENT TO SIR W. SYMONDS. — BUILDING OF THE CONSTANCE, SPHYNX, CONFLICT, ANTELOPE, TRITON, ETC.

From the Earl of Minto.

"Minto, 13th January, 1845.

"DEAR SYMONDS,

"I am much obliged to you for your letter and its enclosure, which gave me the information that I wanted; as well as for the book, which I am, however, sorry you had the trouble of sending, as I have another copy of it here. I will bring it back when I come up to town.

"The total want of system and consistency in the present established complements for our ships, is very little to the credit of their authors, whoever they may be.

"I was in hopes that the Admiralty would have made public some report of the trials of the Brigs before this time. I do not think it fair on any party to leave such full scope to newspaper misrepresentation, when the means of letting the truth be known are at hand. They must, of course, be produced when Parliament meets, as some one is sure to move for them; and I cannot conceive any reason for keeping the public in the dark during the intervening month or two. In the meantime, it gives me great satisfaction to know that you are not without honest support at Whitehall.

"Believe me,

"Yours truly,

"MINTO."

Sir William required this support, for his ships were exposed to the most unmeasured attacks from his old opponents, encouraged by the countenance they were always sure of receiving from certain professional members of the Tory party in both Houses of Parliament.

On the 13th February, 1845, Sir C. Napier brought forward a motion on the state of the Navy. He allowed that Sir W. Symonds's ships were superior to those of former builders; but he complained of the Pique, the Vanguard, the Queen, ("sent to sea," he observed, "in command of an officer 74 years of age," — which was a mistake,) the Albion, &c., though praising their constructor as a good sailor. As to the steamers, the Gorgon was a failure, the Cyclops a failure; and so on.

Mr. Hume, in a similar strain, condemned all the Surveyor's vessels, *in toto*, and advised the restoration of the School of Naval Architecture.

Sir George Cockburn said that the Surveyor had rendered great benefit to the Navy, by increasing the size of ships; making them broader, and thus more capable of bearing the weights they had to carry. He defended the Queen. Sir William was entitled to the support and protection of the Board. The practical Committee of Shipwrights at Woolwich had drawn up their report; and most of their recommendations, modified by the Surveyor's remarks (he, dissenting on many points), had been adopted. The Board had made up their minds *not to trust any one person with building ships:* at the same time, nothing would be done to hurt the feelings of Sir W. Symonds, who had rendered great service to the Navy and the country.

Captain Rous admitted that Sir William built splendid vessels in many respects; Flying Fish was a wonder; but he maintained the necessity of going back to "flat floors" for a large ship; and found fault with his steamers. "No man," he added, "could be more active and intelligent."

Mr. C. Wood defended the Pique, Albion, Queen; and as to comparative cost, he showed that the Surveyor's ships were cheaper. Mr. Corry* (the new secretary of the Board) also defended the Surveyor's ships, quoting the reports of Captains Bouverie and Dunn, on the Vanguard, and of Sir E. Owen and Captain Rich, on the Queen.

Admiral Bowles (now one of the Board, after his return from the Mediterranean) also spoke for the Albion. In his opinion, Sir J. Graham never did a better thing than appoint Sir W. Symonds to an office, which he filled with so much credit, and from which he would retire with the satisfaction of having done more than any other officer for the improvement of the service.

From J. E. Denison, Esq., M.P.†

"Burlington House, Piccadilly, February 14th, 1845.

"My dear Sir,

"I attended the debate last night, with much interest, on Sir C. Napier's motion. I trust the result will be in a great, indeed in a very high, degree, satisfactory to your feelings. Everybody who spoke awarded you a large amount of commendation. Some with more, some with less, reservation.

"The first improvement in our Navy was, by all speakers, attributed to your improved modes of construction. You were on some points attacked—but who is not? Still the commendation so far preponderated, that all who heard the debate, and all who read it, must feel that it has added fresh credit to your name and character.

"Believe me,

"Yours very truly,

"J. E. Denison."

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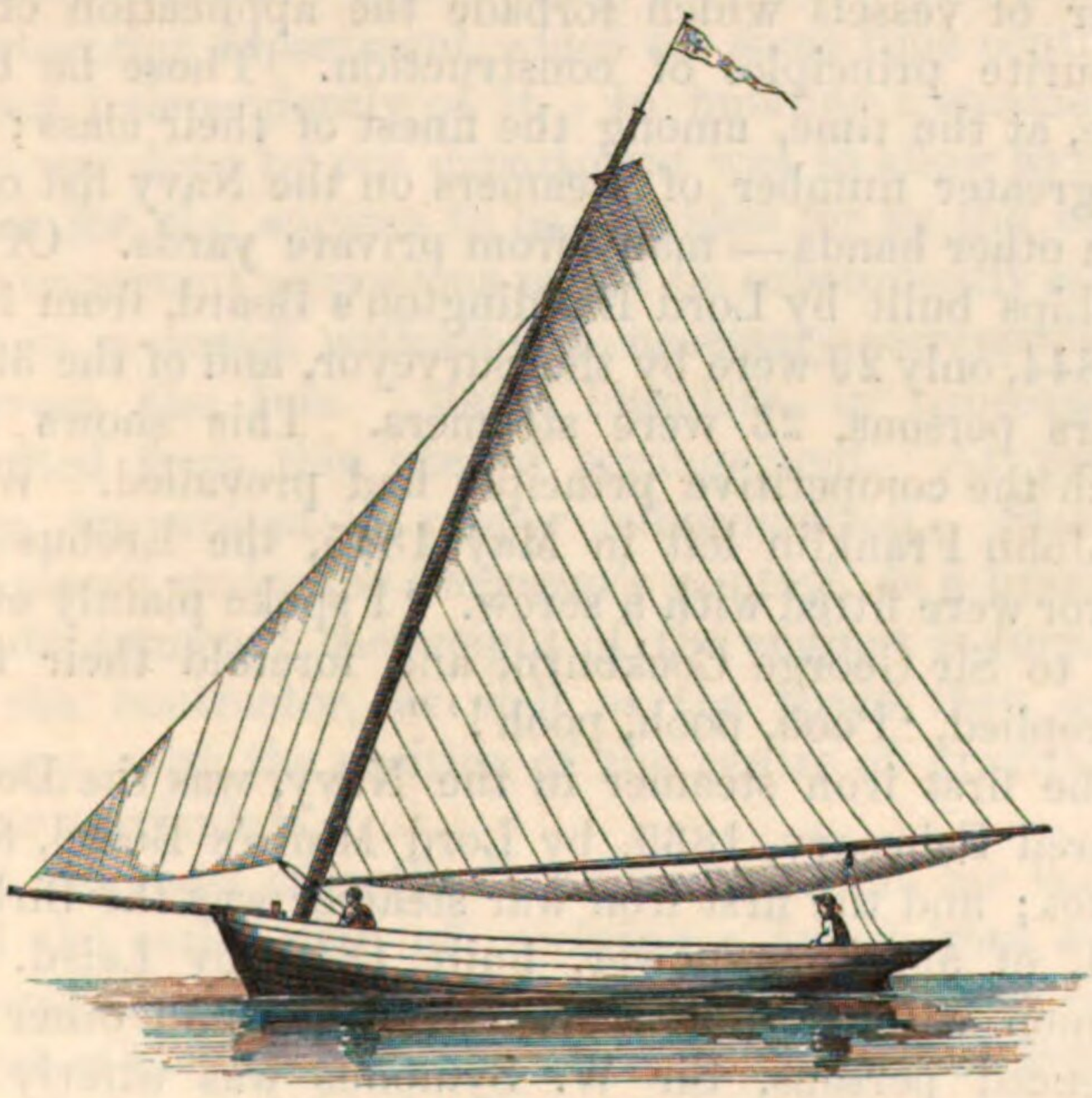
* The Right Hon. T. L. Corry succeeded the Right Hon. Sidney Herbert, who about this time was appointed Secretary at War.

† Now the Right Honourable, the Speaker of the House of Commons, chosen 30th April, 1857. Mr. Speaker Denison married a daughter of the late Duke of Portland, and was a Lord of the Admiralty under the Liverpool Administration.

In the course of this debate, the tenour of which was so favourable to the merits of Sir W. Symonds, Admiral Bowles justly observed, that the country "ought to be grateful to the *Yacht Club**, which had exerted an influence to which might be attributed many valuable improvements in Naval Architecture;" especially, he added, to the late Lord Vernon, and to the Duke of Portland, who had actually *expended* 8790*l.* *in his experiments on the Pantaloon.* This is so true, that no history of the progress of shipbuilding in the last forty years can pretend to be complete, which omits to notice the impetus given to this art by members of the Club, and other amateur benefactors.



Lord Vernon's Bermudan-rigged Boat.

Another member of the House, Captain Harris, thought that a standing commission, made up of "scien-

* First founded 1815, with the late Lord Yarborough, in the Kestrel, at its head.

tific men, good mechanics, good engineers, and good naval architects, would be advantageous;" but this would be only going back to the old Navy Board, with another name.

Under the auspices of Mr. Sidney Herbert, while Secretary of the Admiralty, "numerous and monstrous *iron* steamers" (says Sir William in his Journal) "were introduced into the Navy; and a great many vessels, eight harbour guardships, (four sail of the line, and four frigates,) were ordered to be fitted with the *screw* propeller." In explanation of this, it is hardly necessary to inform the reader, that Sir William Symonds had no love for steamers in any shape. They were an order of vessels which forbade the application of his favourite principles of construction. Those he built were, at the time, among the finest of their class; but the greater number of steamers on the Navy list came from other hands — many from private yards. Of the 68 ships built by Lord Haddington's Board, from 1841 to 1844, only 29 were by the Surveyor, and of the 39 by others persons, 23 were steamers. This shows how much the competitive principle had prevailed. When Sir John Franklin left in May 1845, the Erebus and Terror were fitted with a screw. "I spoke plainly of the risk to Sir George Cockburn, and foretold their fate. He replied, 'Pooh, pooh, pooh!'"

The first iron steamer in the Navy, was the Dover, ordered February, 1839, by Lord Minto's Board, for a packet; and the first iron war steamer was the Birkenhead, of 550 horse-power, built 1845, by Laird. In common with Lord J. Hay, Mr. Edye, and other experienced persons, Sir W. Symonds was utterly opposed to iron steam-vessels of war, especially to such large ones as the Birkenhead* and Megæra. They were

* Lost, 25th Feb. 1852, at the Cape, with 630 seamen and soldiers on board: only 194 escaped. The heroic behaviour of all hands will never be forgotten.

built, without the Surveyor's approval, by order of Sir G. Cockburn, Mr. Corry, and others. He did not, however, object to small iron boats for packets and experimental vessels. One of the chief impediments to their success is, that they are very apt to get fouled. When the Trident came home from the Mediterranean in 1846, the coral, oysters, &c. on her bottom were *three inches* thick.

As to the screw, having, at this date, only the performances of the Rattler* before him, Sir William was inclined to doubt the efficiency of this propeller for general purposes. With regard to steamers, it is necessary to observe that there was then scarcely any communication between the Surveyor's office and the new Engineering department, which for some time continued to act independently of it. In building a steamer, all that was done by one department was to allow so much space for the engines to be provided for by the other; and important alterations might be subsequently carried out in a vessel, without the necessary correspondence between the two. Many blunders, in consequence, resulted from this absurd arrangement. At present they are united in proper subordination. Steamers are placed under the Surveyor's control, as a branch of his department: the weight of the engines is furnished to the contractor, as well as the space they are to occupy, with the position of the centre of gravity, and other particulars.

A few days after Sir C. Napier's motion, Sir William had the satisfaction of receiving a letter from a very competent judge, respecting the character of one of the finest of his corvettes, the *Dido*, on her return from the East India station.

* A trial took place in February, 1845, between the Black Eagle, paddle-wheel steamer, and the Rattler, screw, which was reported as unfavourable to the screw. See Bourne's *Treatise on the Screw Propeller*, 1852, for an account of many experiments.

*From Captain Hon. H. Keppel, R. N.**

"U. S. Club, Feb. 19th, 1845.

"MY DEAR SIR WILLIAM,

"After three years and a half in your beautiful *Dido*, I cannot take leave of her without writing a few lines to inform you how delighted I have been with her performances.

"During the time I was in India, I believe she was more actively employed than any other ship on the station; and under all circumstances, both as to her sailing qualities in light winds or strong breezes, as well as to her roomy and excellent qualities, I consider her the most perfect man-of-war I ever was on board of.

"She is weatherly to an extraordinary degree. I always found her best trim, for all points of sailing, that as recommended by yourself, from six to ten inches by the stern. I had opportunities of trying her in bad weather, and nothing could be easier.

"Her stability under canvas I found to be such, that, although we had not a pig of ballast on board, I have known her to go six and seven knots, close hauled, when, in my cabin, you would not know, from any inclination, on which tack we were sailing.

"I made one of the shortest passages home from the Cape, and never reefed topsails until off the Needles, in foggy weather, when I hauled in to make the land.

"Owing to her space and comfort below, the physician of the fleet in China, Dr. Wilson, assured me that she was (judging from the returns of sick) the most healthy ship out there; although I think that our men *during the day* were as much exposed to the sun and weather, in boats, as any ship on the station. We have not fallen in with any sail that we have not beaten in an extraordinary manner.

"In conclusion, I must congratulate you on having produced a class of vessel combining the greatest possible comfort with all the capabilities of a perfect man-of-war; and I cannot say how sorry I was to read in the papers, on my arrival in England, the unfair abuse of a system of shipbuilding, for the introduction of which, I for one (and I think the whole country too) ought to feel most grateful.

"Believe me,

"Yours very truly,

"HENRY KEPPEL."

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* Now (Oct. 1857) Rear-Admiral the Hon. Sir H. Keppel, on service in China. See p. 189.

That she beat everything in an "extraordinary manner" is certain, because of her extraordinary manner of carrying sail; but it was her uncommon build and stability which enabled her to do this with safety, and to make a passage home from the Cape to Spithead in forty days—then the *best passage* on record—without once reefing topsails. "She passed," says her Master, Mr. R. C. Allen,* "scores of merchant ships, every one of them with double-reefed topsails, and with jibs and mainsails stowed; while the saucy Dido careered along, with whole topsails, top-gallant sails, jib, and mainsail; reminding them, no doubt, of the *Flying Dutchman.*" Her gallant Commander (if there were nothing else to bring him to mind) will be remembered for his exploits against the Dyak pirates in Borneo, as well as for his walking ashore with a party of marines at Macao, and liberating a British subject, who had been laid hold of by the Portuguese Governor for refusing to bow to the Host as it passed by.

Gradually, it appears, Sir George Cockburn was better able to distinguish between the theory and practice of shipbuilding, and to appreciate the works of Sir W. Symonds. On 31st March, Sir C. Napier, in the discussion on the Navy Estimates, allowed Vanguard to be an "uncommonly-fine vessel." Upon this, Sir G. Cockburn observed:—"It was a very extraordinary thing that, with all the efforts we had made to induce persons to give the best form and description of ships, it was so *difficult to find any exact principle* which could be said to be really the best;" *i. e.*, for all . . . . "They had built a ship on Lord Dundonald's plan of parabolic curves, to try it.† They listened to suggestions and heard all parties, to give a fair trial.‡ In justice to

* Now Master of the St. Vincent, Portsmouth.

† The Janus, steamer, 200 horse-power, built 1844. The idea is Chapman's.

‡ This, Sir George afterwards explained as giving "two ships to one, to build, three to another," etc.

Sir W. Symonds, who had built so many valuable ships, and was one of the best sailors in the Navy, they had allowed him to alter the Queen's stern, and to lengthen the Superb's bow."

Captain Pechell thought "Sir W. Symonds deserved the thanks of the country. No doubt he acted in a manner by no means flattering to those who did not approve of his models. Though not a *shipwright by trade, he was a seaman by trade*, and therefore had the advantage over Sir W. Seppings and others, who never left their seats at Somerset House, and knew nothing of vessels except on paper." He was able, not "only to build, but to sail, a ship, as well as any man in the Navy."

Captain Carnegie*, who had commanded "one of the maligned vessels, could not refrain from saying she was the pride of our service and the envy of foreigners."

An Experimental squadron of line-of-battle ships was determined upon in the course of this year; and on 16th of April, that able officer, Sir B. Walker, was appointed to command the Queen, which he retained till the conclusion of the trials, in October. The other ships were, the Hibernia, 104, with the flag of Sir W. Parker on board; St. Vincent, 120; Trafalgar, 120; Albion, 90; Rodney, 92; Vanguard, 80; Superb, 80; Canopus, 84; the last being a fine ship, built by Sané, at Toulon, and taken at the battle of the Nile.

The Earl of Haddington at first offered the command of the Queen to Sir W. Symonds, thinking he might like to have her under himself at the trial; this he declined, after some deliberation, and recommended Sir Baldwin Walker.

To the First Lord of the Admiralty.

"My Lord,

"Having now consulted my friends upon the subject of your Lordship's proposal, to place me in command of the

* Capt. Hon. S. T. Carnegie, commanded the Devastation, steam-frigate.

Queen during the forthcoming trials, I am induced, both in justice to the public service and to myself, most respectfully to decline the honour which your Lordship has offered me, which I do principally upon the plea of infirm health. Previous to breaking my thigh in 1837, when I was eight years younger, I offered my services to command the Pique during her trial with the Inconstant, when her constructor, Captain Hayes, was allowed to command that ship; and was informed that it was incompatible with my situation as Surveyor of the Navy; and, I believe on the plea of its being considered supererogatory, I was refused.

"I beg to acknowledge, with much gratitude, the indulgent motive by which, I feel convinced, your Lordship is actuated in offering to allow me to manage the Queen during her trial; and to be allowed to express my firm hope and reliance, that your Lordship will appoint Sir Baldwin W. Walker to her, who, I am convinced, would do justice to the ship, and give satisfaction to your Lordship, as I know him to be an active, zealous officer, willing, and highly calculated, to undertake the organisation and the sailing of the Queen; and I trust that I shall have permission to witness a sufficient portion of the trial for the purpose of making observations, and to recommend whatever may appear necessary to improve the ships which have been constructed by me.

"W. SYMONDS."

From the Earl of Minto.

"14th June, 1845.

"DEAR SYMONDS,

"Sir Baldwin Walker's report of Queen, which Wood has sent me, gives me much pleasure, and I do not at all doubt of her recovering her Mediterranean reputation in the next trials, if there be fair play. In all the attacks latterly made upon you, your assailants start from the very convenient assumption, as matters of fact and notoriety, that all your ships are detestably bad; that those of all other nations are vastly superior to them; and by dint of continually repeating this, they, to some extent, succeed in making an impression on the public, generally prone enough to take it for granted that everything is ill done. Now, so far as my knowledge goes, I do not remember a *single instance of any one of your ships sailing with either a Frenchman or an American, in which you did not very ridiculously beat them.* I have no doubt that you must be in possession of many reports of such chance trials, and I think

that they would be the best answer to such statements as Mr. Young's, of the low state of our Naval architecture. It would be absurd to contend that you or any man living had attained absolute perfection, and that there remained no room for improvement; but you have no difficulty in showing that you have made *our ships superior to those of every other nation*, in all the essential qualities of a man-of-war.

"I hope that, in the approaching trials, you will take care to procure an exact statement of every trifling shift of wind whilst they last, for I do not think you will be favoured.

"Ever yours truly,

"MINTO."

Admiral Parker's experimental squadron left Spithead on the 15th of July, Her Majesty, Queen Victoria heading them in her yacht, the Victoria and Albert. They carried from 350 to upwards of 500 tons of water (according to size), and twenty to twenty-one weeks' provisions, except the Albion, which carried twenty-six weeks'. The result of a cruise in the Bay of Biscay, in July and August, was that Queen was first, both off and by the wind; and Albion second.

*From Captain H. Leeke, R.N.**

"Admiralty House, Devonport, 2nd September, 1845.

"MY DEAR SIR WILLIAM,

"You have no doubt heard of the performance of the Queen, and next to her, the Albion, but I enclose you a letter which I have received from Mr. Bourchier, a friend of mine and her Second-Lieutenant; and I am quite sure it will gratify you to read the account. Added to this, we have letters from others, who give precisely the same account of your noble men-of-war. I do most sincerely congratulate you upon this triumph. I never doubted it, if fair play was given. How perfectly you have floored all the opposers of your plans! How extraordinary that such an immense castle as the Queen, should

* Flag-Captain to Sir J. West, Commander-in-Chief at Devonport. Now Rear-Admiral Sir H. Leeke, late Commander-in-Chief of the Indian Navy.

so perfectly and thoroughly beat everything, even the long-legged 90-gun ships! Vanguard has been, I imagine, badly steered, but there is no doubt of her good qualities in the end. I write in haste, to save to-day's post.

"Believe me to be,

"Very sincerely yours,

"HENRY LEEKE."

From Admiral the Hon. D. P. Bouverie.

"Cliff Hall, Devizes, September 17, 1845.

"MY DEAR SYMONDS,

"I am anxious to write you a few lines to congratulate your having been so completely successful in having remedied all that was complained of in the Queen, in the cruise of trial of her, last autumn. I need hardly assure you how very sincerely I rejoice that she is shown to be so very superior a ship; but that the Vanguard should be the slowest, instead of being No. 1., is what I can't comprehend. Can you explain how it is that she and the Superb should be the sternmost ships, on all, or nearly all, the trials of sailing? It has always appeared to me very absurd, that the squadron should have been sent to sea so heavily laden: this must be necessary sometimes; and then you must take the consequence of having uneasy ships, and an inferior rate of sailing; but why you should so overload them, when it is not necessary, I can't conceive. That the Vanguard and Superb should feel the overloading more than the old round-bottomed ships is not surprising, but they don't seem to have sailed at all better, relative to the others, during the latter part of the cruise, when they got lighter.

"Adieu. We hope Lady Symonds is as well and as comfortable as you can expect: and that you are going on smoothly, and as satisfactorily as you could wish with your Chiefs near Charing Cross.

"I beg you to believe me, always,

"Very sincerely yours,

"D. P. BOUVERIE.

"Was there ever anything so extraordinary, or absurd as employing the Superintendents* to command the squadron, as if that was not an office of any charge, or consequence."

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* The Admiral-Superintendents at the ports.

In September, Sir W. Symonds visited Clipstone, Notts, a seat of the Duke of Portland. His journal of the 15th inst. records that —

"The Parliament oak, in Clipstone Park, is said to be 1500 years old. This park existed before the Conquest, and belongs to the Duke of Portland. The tallest oak was the same nobleman's property; it was called 'The Duke's Walking Stick,' and was higher than Westminster Abbey.

"The largest oak in England is the Calthorpe oak, Yorkshire: it measures 78 feet in circumference, at the ground.

"The Three Shire oak, at Worksop, is called so from covering parts of the counties of York, Nottingham, and Derby. This tree had the greatest expanse of any recorded in this island, dropping over 777 square yards.

"The most productive oak was that of Gelenos, in Monmouthshire, felled in 1810: the bark brought 200*l.*, and its timber 670*l.* In the mansion of Tredegar Park, Monmouthshire, there is said to be a room 42 feet long and 27 feet broad, the floor and wainscot of which were the produce of a single tree, an oak, grown on the estate."

From the Right Hon. Sir James Graham, Bart., M. P.

"Netherby, 25th September, 1845.

"My dear Sir William,

"I never can cease to feel the most lively interest in Naval affairs, and to watch, with friendly anxiety, the success of your ships.

"You know, by experience, the full extent of my confidence in your integrity and abilities. To be abused is the common lot of all public servants who have risen to high stations; but their abuse is, I trust, no proof of demerit: it proceeds rather from jealousy and conscious inferiority. Your works will speak for themselves; and, come what may, you have given an impulse to the improved construction of ships, which no intrigue or ill-will can arrest: as far as I know, in the highest quarters, a just estimate is formed of your competency and deserts.

"I am sorry that you feel so sensitively the attempts which are made to disparage you. My advice is to hold on, and steadily and quietly to persevere; correcting errors where experience shows that improvements are necessary, or that mistakes have been made; but, in all circumstances, cheerfully doing your duty with diligence; and the honest pride of this

inward conviction will sustain you in every difficulty, and enable you ultimately to triumph over all your enemies.

"I have not forgotten the Constance. My daughter will be in London in December, and we will then arrange about her bust.

"Vanguard and Superb, when in their proper trim, will tell their own tale. You need not be disheartened; you have many friends; none more sincere than,

"Yours very truly,

"J. R. G. GRAHAM.

"Captain Sir W. Symonds, R.N."

Admiral Sir W. Parker having invalided after his cruise, it was resolved by the Board that a second trial of the ships should be conducted by the new chief, Sir S. Pym, who was reported to be hostile to the Surveyor's ships; and his friends, in consequence, felt some anxiety —needless, as it turned out—as to whether he was likely to receive fair play.

From the Earl of Minto.

"17th September, 1845.

"DEAR SYMONDS,

"Many thanks for Sir B. Walker's letter, which I return. You have good reason to be proud of the performance of Queen and Albion in the late trials; and as Vanguard's superiority had long since been well established, there can, I think, be no doubt that her recent failure will be found to have proceeded from some great error in trim, or in placing of the masts. I expect a better account of her in the next cruise. I hope the Admiralty mean to give us Parker's report in full, with all the details of each ship and her performance.

"I had supposed Sir Hugh Pigot to be the person likely to take charge of the further trials in place of Parker, and shall extremely regret the selection of Sir S. Pym, if (which I cannot believe) he is to be appointed for that service, for which he is totally disqualified by his vehement partisanship. I really think, if there be reason to apprehend his appointment, that you ought privately to make known to some member of the Board the great injustice which would then be done to you. In truth, the public would feel no confidence in the result of trials so conducted.

"My son tells me Spartan's masts (in the most perfect condition) were *taken out*, in order to be fitted with Harris's Conductors*, in lieu of the wire-rope conductors, which, he assured me, were never the least in the way, or otherwise inconvenient; whilst their efficacy has been tested in the Electra, in a thunderstorm, of which a report went to the Admiralty. It seems rather a strange thing to have dismasted a ship in order to throw away two or three hundred pounds, in giving protection which was already complete. I doubt much if any member of the Board has yet taken the trouble of making himself master of this subject of conductors.

"Ever yours truly,

"MINTO."

[Private.]

"MY DEAR ADMIRAL BOWLES,

"Allow me to beg that you will peruse a note which I have just received from Lord Minto. Both the subjects to which it principally refers, will, I am sure, interest you; and I trust that your benevolence and desire for justice will be exercised successfully on one of the subjects.

"Always your most obliged and faithful servant,

"W. SYMONDS."

Admiral Bowles showed the Surveyor's note and Lord Minto's letter to Sir George Cockburn, who thereupon wrote to Sir Samuel Pym, telling him that he had better resign, if he felt the prejudice alluded to. Sir Samuel denied having such feelings, asserting the contrary.

From the Earl of Minto.

"September 24, 1845.

"DEAR SYMONDS,

"I have to thank you for a copy of '*Facts* versus *Fiction*,'† which I have gone through with much satisfaction; and I really trust that the work may have the effect of dis-

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* The conductors of Sir W. S. Harris were tried in a ship of war, for the first time, in 1830. However alarming it may seem to pass lightning through a ship, down her masts, on this plan, yet their superiority and perfect safety have been shown on many occasions, in which both masts and vessels have escaped. In fact, to carry lightning off this way is as "harmless as letting water down a pipe."

† Published this year. See p. 127.

crediting the misrepresentations that have been so largely employed against you. I am not quite sure, however, that the moment for its appearance is fortunately chosen, and it might probably have been better to defer it till the conclusion of the trials now in progress, when Vanguard might be found to have redeemed her character, and the cause of her recent failure, whatever it might be, might have been explained.

"I have seen a great many letters from officers in the squadron, with daily reports of the trials, but none of them gave all the details which are necessary on such occasions. I hope this want will be supplied by the Admiralty, or from some other quarter.

"Believe me,

"Ever yours truly,

"MINTO."

Sir Samuel Pym fully vindicated his impartiality in this second trial cruise, which was not less gratifying to the Surveyor than the first. The Rear-Admiral reported, on his return, 10th October, that the Queen, in a chase, had gained on the Daring; that she and the Albion never appeared to strain anything under a press of sail; and that he was perfectly satisfied that the *Queen* was the best ship, the Albion and Rodney next, &c.* These details brought the following letters of congratulation:—

From Admiral Bowles, M. P.

"Admiralty, October 13th, 1845.

"MY DEAR SYMONDS,

"I congratulate you from the bottom of my heart on the result of the cruise, which I hope will set your heart (as well as the question in dispute) at rest for our time.

"You will also, I trust, have received a perfectly satisfactory letter from Lord Haddington, on the subject of my last to you. I am sure he very much regrets having said anything which gave you a moment's pain.

"You have now only to get quite strong again, and, considering the battle won, cast aside all care and anxiety, and leave off

* Admiral Sir S. Pym, a descendant of the famous John Pym, died 1855.

worrying yourself about these attacks, which I dare say will not be immediately discontinued, but which you can well afford to despise.

"I hope you will be well enough to dine with me on the 21st (Trafalgar).

"Yours very truly,
"WILLIAM BOWLES."

From the Earl of Minto.

"Minto, 24th October, 1845.

"DEAR SYMONDS,

"I have ventured to keep your papers (which I now return) a few days, in order to go over them with care, which I have done with very great satisfaction; and have now only to congratulate you very heartily on the triumphant success of the Queen and the Albion throughout these trials.

"I do not expect that this will wholly silence the detraction and misrepresentation, with which you have been so acrimoniously assailed; but enough has transpired to deprive these libels of the easy credit that they found with the public. I should have been glad had it been thought proper to allow the diagrams to be lithographed with full notes, as no one can pretend, from memory, to discuss the subject in any detail.

"The extraordinary performance of the Queen, and especially as compared even with Albion, the best of the two-deckers, should, I think, lead you to consider of the propriety of some little modification of your midship section, and of some other proportions and lines in the latter class of ships. The whole of the excess of Queen's displacement over that of Albion, is obtained by greater flatness of floor. Had the proportions of Albion been similar, even with the sacrifice of a little beam, she would, I think, probably have beaten Queen, as much as a two-decked ship ought to beat a three-decker. I may, possibly, be wrong in this, but I think it as well to mention what occurs to me. I cannot at all comprehend Vanguard — a well-proved ship; there must be unaccountable mismanagement with her somewhere.

"I congratulate you heartily on your son's marriage, though I hope that a happy fireside will not seduce him from his profession, which cannot afford to lose such good men.

"Believe me,
"Yours truly,
"MINTO."

Sir William's second son, Captain T. M. C. Symonds,

married, on the 25th September, Anna Maria Heywood*, daughter of the late Captain Edmund Heywood, R.N., C.B. In May of 1846 he was appointed to command the Spartan, in the Mediterranean.

The following undated Memorandum on the Dockyards may have been transmitted to the Board about this time. The propriety of taking away the franchise from these establishments has been frequently discussed.

"Admiralty.

"As I hear frequent complaints from the Superintendents, and the principal officers of the Dockyards, of the insubordination and other hurtful effects arising out of the present system of appointing and advancing Dockyard officers, and workmen; and am credibly informed that committees composed of persons perfectly unconnected with the Dockyards, exist in the towns at the principal seaports, for the sole purpose of selecting individuals possessed of the greatest borough, or political interest, whereby many unqualified persons are admitted, and others advanced, without regard to merit or ability, and contrary to the recommendation of the professional officers, which I consider is both prejudicial to Her Majesty's Service, and injurious to the discipline of the Dockyard; I fearlessly venture to call their Lordships' attention to this crying evil.

"From the date of my appointment in June, 1832, until September, 1841, all appointments, advancements, and removals were referred to me, as provided for in the General Instructions; but have been omitted since that period. It was then my duty, as it was my greatest satisfaction, to find out from the officers the most exemplary and deserving men; and without fear of contradiction, I declare, that *merit* from service, good conduct, and ability, were my sole guides in recommending the appointments, in the course of between nine and ten years. The greatest boon to the service would certainly be the disfranchisement of persons in the Dockyard, similar to the Customs, Excise, and the Post Office; and in the meantime I recommend that the most able and deserving people should in future be selected by the principal executive officers, who must be necessarily acquainted with their merits; and the nominations be transmitted to the Board for selection.

"W. SYMONDS."

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* Mrs. Symonds died in July, 1847.

This year, 1845, the following vessels were launched by the Surveyor: —

Active,	40 guns -	-	-	Chatham, 19 July.
Alarm,	26 guns -	-	-	Sheerness, 29 April.
Creole,	„ -	-	-	Plymouth, 1 Oct.
Calypso,	18 guns -	-	-	Chatham, May.
Kingfisher,	12 guns -	-	-	Pembroke, 8 April.
Avenger,	steam-vessel,	650 h.p.		Devonport, 5 May.
Dragon,	„	560 „		Pembroke, 17 July.
Centaur,	„	540 „		Portsmouth, 6 Oct.
Fury*,	„	515 „		Sheerness, 31 Dec.
Bulldog,	„	500 „		Chatham, 2 Oct.
Inflexible,	„	350 „		Pembroke, 22 May.
Harpy, (iron)	„	200 „		Blackwall,
Torch, (iron)	„	150 „		„

The *Calypso*, a corvette of the Dido class, was 120 ft. long, 37 ft. 6 in. in the beam, 18 deep in the hold. She visited Pitcairn's Island, 1849, in command of Captain J. Worth. There was a small Calypso, lost in 1833, on her way from Halifax.

The *Avenger*, a fine steam frigate of 1444 tons, commanded by Captain C. G. E. Napier (stepson to Sir C. Napier), was unhappily lost on the night of 20th November, 1847, on the Sorelli reef†, near Tunis, 14 miles from Galita; a strong S. E. current setting her that way. She sank in five fathoms water. Only Lieutenant F. Rooke and three men were saved. Pieces of the ship found their way to Elba, Leghorn, &c.

The *Harpy* and *Torch* were built in Ditchburn's private yard.

About this time, Sir William writes in his Journal, "I was ordered to report on the monstrous iron screw vessels, and also on the Phaeton‡, and the Termagant§

* The old Fury was stranded 1825, in Prince Regent's Inlet, in Parry's third expedition.

† Not far from the Esquerques, where the Athénienne was wrecked.

‡ Phaeton, 50-gun frigate, launched 1847.

§ Termagant, screw-steamer, launched 1847.

(screw), to be built by Mr. White. Both were found wanting in displacement and capacity, and were three times mutilated, as may be seen by their drawings at Somerset House, shown in black, blue, and red lines. The Phaeton's ports, as originally intended, would have stood only two feet from the water line, so that whatever she and the other ships may prove to be, it will be owing to my report of their defects."

On 13th January, 1846, the Earl of Haddington retired from the Admiralty, to make way for the Earl of Ellenborough, as First Lord, but the influence of the Senior Naval Lord, Sir G. Cockburn, was still paramount.

Another experimental squadron, or Squadron of Evolution, was formed in May, composed of sailing vessels and steamers, and including ten of the Surveyor's ships, viz., Queen, Albion, Superb, Vanguard, line-of-battle ships; and the steamers, Retribution, Gladiator, Cyclops, Devastation, Scourge, Rattler (screw); the others being the St. Vincent, Trafalgar, Rodney, Canopus, with the Raleigh and Terrible. The Raleigh was a copy of the Vernon, by Mr. Fincham. This squadron sailed from Portsmouth, 13th May, under Commodore Sir F. Collier, whose pendant was on board the St. Vincent. After a short cruise in the Channel, the *Superb*, in the hands of Captain A. L. Corry, was pronounced the fastest and most weatherly ship under a press of sail.

The disposition to throw Sir W. Symonds overboard was made pretty evident about this time, by an Admiralty Order of 9th May, directing that draughts of all ships were to be submitted to them, and if expedient, were to be revised by the Surveyor of the Navy, the Chief Engineer, and a board of officers, shipwrights, and others, to be styled a Committee of Reference, of which Captain Lord John Hay, one of the Board, was appointed Chairman. The Surveyor and the Committee were made responsible for the preliminary calculations, by which the constructor (whoever he

might be) was to be guided. At first, it was made "imperative" on the Surveyor to submit all his plans to this Committee, an absurdity which was soon dropped; but he could not but regard the whole measure as a decided proof of want of confidence in himself and his principles of construction. The duties of the Surveyor would, in fact, be transacted by this Board, who were chiefly members of the old School of Naval Architecture, and pledged opponents of his system ever since he had been in office.

In a letter to an influential friend, he says, "I have but one supporter at the present Board. They are all-powerful. They are not bound to continue my system, which has now been extended to about 212 ships of various kinds. Far be it from me to imagine that my system is perfect, but in looking around I cannot find out the authors of a better one. The School has, assuredly, never produced a good ship. The Board can always have recourse to the opinions of those in whom they feel confidence. If I submitted to be mixed up with those who are incompetent, my opinions would be always in a minority, and yet I should be considered guilty of aiding in the ruin of the Navy." He had no control, he repeats, over the "wasteful expenditure of public money in the deformities, failures, and extravagances which have been produced," yet he would be made the victim; for the world would naturally attribute the failures to him; and, rather than submit to further indignity, he would consent to retire.

He addressed a letter to this effect, on 31st May, to the First Lord, remonstrating against the Committee of Reference*, and urging him to appoint "some Naval officer in your Lordship's confidence, with whom

* The non-Naval members were Dr. Inman, Professor of Mathematics at the Naval College; Messrs. Fincham and Abethell, Master Shipwrights; and Mr. Bennett, Secretary.

I might satisfactorily act, for the benefit of the public service." He concludes: —

"Since I had the honour to hold my present appointment, I have endeavoured—with unabating zeal, and with a sincere desire to improve the Navy—to give satisfaction to the Board of Admiralty, and to recommend nothing for their consideration and approval without deep reflection.

"In 1837, I received the thanks of their Lordships for the success of my ships, and the improvements which I had introduced into the service. Convinced that no mortal can produce perfection, all I court is, their Lordships' confidence and support. I shall at least never relax in my exertions.

"I can boast of fifty-two years in the naval profession, out of which I have been employed fifteen years in the construction of more than *two hundred vessels* for the Queen's Navy, under several Administrations, since 1831; and it will be my proudest feeling to be still supported by your Lordship.

"I have the honour to remain, &c. &c.

"W. SYMONDS."

Lord Ellenborough held the reins for a very short time, when the return of the Whigs to power placed Lord Auckland at the head of the Admiralty, assisted by Sir C. Adam, Sir W. Parker, Admiral J. D. Dundas, &c., and Mr. G. G. Ward for Secretary. "Under the late Board," says Sir W. Symonds, "an attempt had been made to reward merit among the workmen, but the system of jobbery prevented its accomplishment; and, since 1841, less work was obtained from the Dockyard men than during any former period." As to the new Board, he was sorry to notice that they appeared pledged to carry out the "views of their predecessors, with respect to iron and screw steamers, harbour guardships, &c., notwithstanding the warning which I thought it my duty to give;" and it was evident that the Committee of Reference was not to be dispensed with.

While away on duty, in September, Sir W. Symonds met with a serious accident, which laid him up for several weeks, and nearly cost him his life. It was his

third narrow escape from drowning; and he esteemed the particulars to be of so much interest, that he had a short narrative printed for the use of his friends.

"On the 22nd of September, 1846, Sir William Symonds, the Surveyor of the Navy, being on his return from an official visit of inspection to Pembroke Yard, embarked at Tenby in the Phœnix steam-vessel, bound to Bristol, having on board about 100 passengers. On embarking, he met Commander Dunn, of the Navy, who commended to his care Mrs. Dunn, with her son and daughter. The party took their places on the starboard-side of the quarter-deck, on a seat which allowed them to lean back against the companion ladder-way. All were well cloaked, which, with the aid of umbrellas, kept the ladies dry; but Sir William was exposed to the rain and wind, beating between the mainmast and the corner of the companion. The rain was incessant during the whole passage, and the wind blowing furiously. The cabin was so full of sick people that it would have been most disagreeable to have retired below.

"About eight o'clock, it was quite dark; and when hauling up for the Swash-way, leading from the Severn into the Avon, an alarm was created by the sudden approach of a steamer coming out of the Avon; she advanced so directly towards the Phœnix, that there was barely time to hail her to reverse her engines. Sir William Symonds saw that it was impossible to avoid a collision. The stranger's bowsprit took the main-rigging of the Phœnix, and her cutwater and figure-head—or the wreck of them—instantaneously lifted Sir William from his seat, and entangled him, as it were, in a sort of 'crow's nest' formed of rope, iron, and timber. Thus elevated above the Phœnix, he conceived that she, being cut down to the water's edge, was sinking. However, they soon got clear of each other, and as they separated, the materials which held him suspended in the air began to give way. When about to fall into the water also, he saw a rope immediately above him, under the bowsprit of the steamer which had so unceremoniously taken him out of the Phœnix; he caught hold of this, and, kicking himself clear of the loose wreck, he hung for a considerable time entirely by the arms. He was, at last, perceived by a boy, who cried out, 'Here 's a poor fellow hanging under our bowsprit! Hold on, my boy—we will soon come to help you.' [A sketch of him in this critical position was prefixed to the narrative.]

"Several sailors soon appeared on the bowsprit, and released him from his perilous situation, just as the paddle-wheels began

to turn. He was at the time encumbered with two great coats and a cloak, wet through; he received some very severe contusions on his left thigh, and both his legs and thighs were lacerated, and covered with wounds of a most painful nature, from the collision. The stranger was the Herald, from Bristol to Padstow. Two female passengers proved kind Samaritans, as they bandaged his legs, and were otherwise attentive to his wants. Sir W. Symonds was landed at Clevedon, two hours after the accident, put to bed, and well attended. An express sent to Bristol, brought his servant, with a post-chaise, in which he proceeded to Bristol, where all his fellow-passengers had arrived safe, but fancied that he was drowned. Thence he proceeded, per railroad, to London, where he was confined to his couch for a period of six weeks."

One of the duties assigned to the Committee of Reference was to draw up an elaborate Report on Naval construction, which, by a minute of the 4th November, was referred to Sir W. Symonds for his remarks, in the "hope of bringing the question at issue to some useful result." In his reply, December 7th, while still protesting against this measure as "illegitimate and unprecedented," and one of which he was kept in ignorance by the late Board, until called upon to give his observations*, he stated, that the Report, in his opinion, was "made up of speculative theories, throwing no clear light on a subject which, he submitted, was altogether a practical one." The observations of the Committee were, as may be imagined, "condemnatory of the whole system upon which his ships were constructed;"—that is, condemnatory of *ships which, over and over, had been tried and reported of most favourably*, by the most competent officers in the service. "The Committee (except the noble Chairman) is composed of my competitors, who have an interest in overthrowing my works. As well might the subordinates of a regiment or of a ship be appointed to try their com-

* "I knew," he adds, "that the Prime Minister (Sir R. Peel) had insisted upon my feelings being respected."

manding officer. I impugn their judgment, and I challenge their competency in such matters. They have had many opportunities of testing their theories in practice, and have produced the vessels named in the margin*, which have egregiously failed in speed, stability, handiness, and capacity."

After an allusion to his professional services, and the number of plans he had given in for "more than two hundred vessels for Her Majesty's service, — which would have proved more perfect if I had been allowed opportunity to try them more fully," he adds, "I may assert that no shipbuilder, of any period or in any country, has had my experience, or has designed or constructed a tithe of the vessels built by me. I fearlessly refer to the reports of those officers who have tried my ships of all classes."

"I stand upon the merits of my works, for which I have received the thanks of the Admiralty. I conceive that there can be no comparison between my works and experience and those of the four gentlemen who compose the Committee. I repeat that it is their interest to throw odium on my works, and to overthrow me.

"The Captain and the Commander of the Albion pronounce her perfect; and state that she is the finest two-decked ship in the world; that, notwithstanding her motion, she strains nothing; and they say that she has the same lanyards rove, to set up her lower rigging, that were fitted when she was first commissioned. Their good opinion of her is supported by Sir Samuel Pym, who states, in his report, that 'nothing could be more easy than the Queen and the Albion, which never appeared to strain anything.' Sir William Parker speaks highly of her, but says advisedly, that her motion appears to him quicker than other ships of her class; and he informs me, that when he observed her motion, she and the other ships designed by me, *from their fleetness*, carried less sail; which doubtless would

* "Actæon, 26 guns; Volage, 26; Sapphire, 28; Comus, 18; Electra, 18; Fly, 18; Harrier, 18; Larne, 18; Orestes, 18; Rose, 18; Icarus, 18; Prince Regent yacht."

have steadied them if more had been set on them: he also infers that her motion may be obviated by improved stowage. The Prince de Joinville and other foreigners joined Captain Lockyer in praise of the Albion; and, at Gibraltar, continually invented excuses to visit her.

"Their Lordships know that nothing can be perfect in every respect. I feel convinced that *quick motion is the penalty of buoyancy and stability;* and, with reference to my minute of the 4th of March, 1846, on the subject of proceeding with the ships named in the margin *, whose frames are being converted, I propose to lay before their Lordships a modification of the present form and dimensions of the Albion, which I consider will have the practical effect of making those ships easier than the Albion, in proportion to the degree of stability that will be sacrificed from a reduction in the breadth of beam, and in altering the midship section, nearly to that of the Queen; to which form and dimensions, I have ascertained, the frames already proposed can be adapted without sacrifice or loss.

With respect to the three 90-gun ships, as above, which are considerably advanced, some alteration has been made; and having been six or seven years on the stocks, the timber will have lost so much of its weight from being seasoned, that the ships will swim about 7 inches lighter than the Albion; which will raise the centre of gravity, decrease their stability, and make them easier.

"The Albion was hastened as an experiment; was what may be termed a green ship; and was therefore too much immersed, owing to the extraordinary weight of unseasoned Italian oak; which is from 10 to 25 per cent. heavier than English oak.

"I have not seen the drawings upon which the reports have been made upon the lines proposed by Captain Corry, Lord John Hay, or Captain Fishbourne; nor have I seen any substantial reports on the qualities of the Albion, calling for the severe detractions which are contained in the report of the Committee.

"I beg to add, that I am credibly informed, that the St. Vincent was found so crank on her passage home, that on some occasions during the whole night on a lee shore, she had all her lee guns run in, which might have proved fatal had she been suddenly taken a-back. This I merely mention to prove the value of stability, though I acknowledge it may be

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* Hannibal, Algiers, and St. Jean d'Acre.

carried to too great an extent. Perhaps I may venture to add, that I was informed, when at Brest in 1840, that the French Navy has *been ruined by theory without practice.* I have in my possession the lines upon which they have built their 100-gun ship on two decks, which I learn are all failures. I will lay the model before their Lordships, if permitted, when finished.

* * * *

"W. SYMONDS."

Being desired to report upon the merits of the Cressy and Agamemnon line-of-battle ships, then on the stocks, Sir W. Symonds sent in the following opinion to the Board: —

"December, 1846.

"In reply to their Lordships' desire in their minute of the 11th instant, that I report my opinion on the Cressy, building at Chatham, from the designs of Messrs. Read, Creuze, and Chatfield, and the Agamemnon, on the lines of the late Admiral Hayes, I beg to say, that the former has an excess of displacement, over ships of that class already in the service, of about 100 tons. I consider her form devoid of symmetry, and I see no reason to believe that she will either sail fast or prove a handy ship. Her floor rises so suddenly from the keel, forming a hollow garboard, that getting on shore would probably be fatal to her. Great difficulty was found to obtain enough timber of sufficient curvature to convert the floors and third futtocks of that ship and the Thetis. And I beg to remind their Lordships, that the Espiègle, a brig built by the same parties, on one occasion lurched 47°. The Agamemnon has about 7 tons more displacement than the Vanguard; and is of less dimensions than the Cressy: there is nothing striking in her lines, nor do I consider her any improvement on the ordinary ships in the service."

Both ships were afterwards converted into screw steamers. The Cressy, of 80 guns, was employed in the Baltic during 1854–6.

The ships launched by the Surveyor in 1846 were these: —

Constance,	50-gun frigate,	-	Pembroke, 12th May.
Mariner,	12-gun brig,	-	,, 19th Oct.

Sphynx, steam vessel,	500 h. p.	-	Woolwich, 17th Feb.
Conflict,	„	400 „	-	Pembroke, 5th Aug.
Antelope, (iron)	„	264 „	-	Blackwall,
Triton, (iron)	„	„ „	-	„
Minx, (iron)	„	100 „	-	„
Teazer,	„	40 „	-	Chatham, 25th June.

The *Constance*, the largest frigate of the Vernon class, was launched 12th March. She was ordered in 1833, when Captain Hayes began the Inconstant.* Length 180 ft., by 52 ft. 8 in. beam; tonnage 2132. Her figure-head was modelled after the bust of Miss Graham, daughter of Sir James Graham. Sir B. Walker was appointed to command her.

The *Sphynx* had the misfortune to get ashore, 16th February, the year after she was launched, near Brook, at the back of the Isle of Wight. After lying there nearly two months, she was, through the exertions of Captain Crispin and others, safely lifted off by camels, fixed under her paddle-boxes. Such was her uncommon strength that she was not strained or twisted by this accident, nor was a bit of copper broken; only her false keel, &c. went.

The *Conflict*, screw steamer, was launched in August. Her dimensions were 209 ft. 4 in., by 34 ft. 4 in. The *Minx* and *Triton* were built in the yard of Miller and Co., and have since been converted into screws. The *Antelope* was built in Ditchburn's yard.

One recommendation of the Committee of Reference went so far as to propose a material alteration in the ships of the Surveyor's designs, then building on the stocks. This mortifying interference with his own works led to a correspondence, which is frequently alluded to by himself and others, and which ultimately occasioned his retirement.

* See p. 189,—Official letter on the merits of Pique and Inconstant.

CHAP. XII.

1847—1849.

MR. HUME'S MOTION. — THE DUKE OF PORTLAND'S PROPOSAL TO BUILD ANOTHER SHIP. — SIR WILLIAM'S RETIREMENT FROM OFFICE. — BUILDING OF THE LION, SYBILLE, ARACHNE, BRITOMART, CARADOC, AND OTHER VESSELS. —THE PILOT AND FROLIC. — BUILDING OF THE ABOUKIR, COLOSSUS, MARS, MEEANEE, DIAMOND, ETC. — THE SPARTAN AND THETIS. — BUILDING OF THE ARETHUSA, OCTAVIA, NIOBE, DESPERATE.

From the Right Hon. Sir James Graham, Bart. M.P.

"House of Commons, 23rd March, 1847.

"MY DEAR SIR WILLIAM,

"I am sincerely sorry for this annoyance, to which you are exposed; and I fully admit the extreme difficulty of your position. I would gladly assist you, if it were in my power; and I gave to Admiral Bowles my opinion, which I told him he might communicate to you, with respect to the recent correspondence between you and the Board, on the subject of the proposed alteration in the construction of several line-of-battle ships now on the stocks. I cannot, however, interfere with the proceedings of the Board, holding no communication, direct or indirect, with them. I have no doubt, let the result be what it may, that you have rendered great service to your country; and that no one man has done so much in our day to improve the construction and to augment the fighting power of our ships of war as you have, since you were appointed Surveyor of the Navy.

I shall never cease to feel an honest pride in the selection which I made, when I nominated you to this office; and the day will come when it will be admitted that you and I have inflicted no injury on the British Navy.

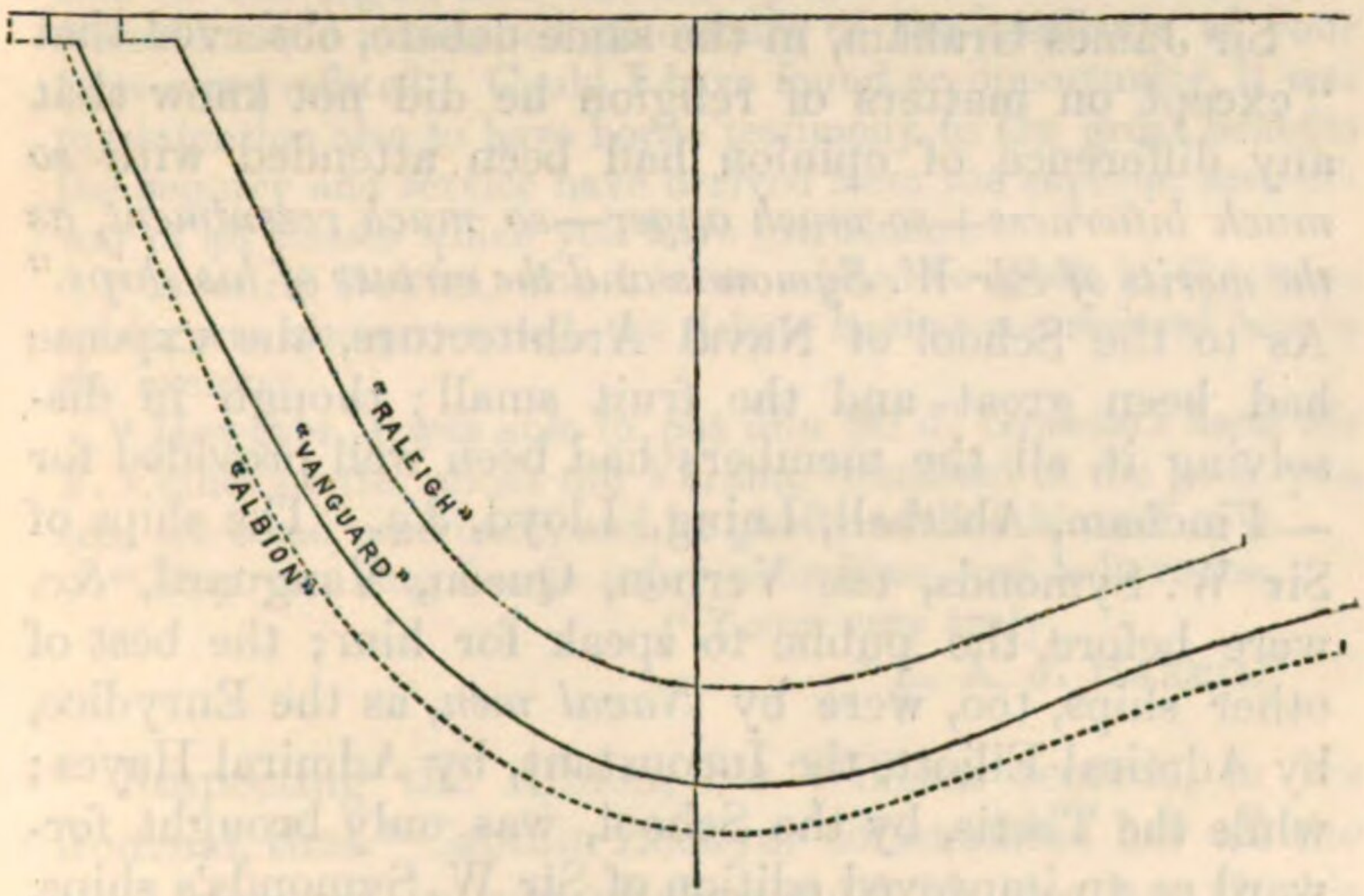
"I am, my dear Sir William,

"Yours sincerely,

"JAMES GRAHAM.

"Captain Sir William Symonds, R.N."

A note of Sir W. Symonds to one of the Lords of the Admiralty, dated 6th April, 1847, calls attention to the "accompanying midship sections of the Albion, Vanguard, and Raleigh;" the last of which (a frigate, launched 1845, by a member of the Committee of Reference) appeared to him to amount to "positive piracy" from his own ships; and certainly, a comparison of the outlines, which are almost exactly similar, justifies the inference.



Under ordinary circumstances, to copy the Surveyor's lines would have been taken as a compliment; but it so happened, that all the former vessels of the School of Naval Architecture were essentially different from the Raleigh, whose qualities, however, were praised by the Committee; it was, therefore, with some surprise that Sir William found that a thing so contrary to what they held to be sound theory, in his ships, should be well reported of in the Raleigh's case. She was wrecked in the China seas, 1857, on an unknown reef.

In a debate of 29th April, brought on by Mr. Hume's

motion for an inquiry (founded on the adverse Report of the Committee of Reference,) Mr. Ward acquainted the House that Sir W. Parker* had written to Lord Auckland, to say, that he considered the "Queen to be by far the finest ship of her class that had ever been built," and he had heard no complaint of her being uneasy. The Admiral added, that he wished Captain Lockyer,† whom he calls "every inch a sailor," had been allowed to ballast and trim the Albion according to his own ideas.

Sir James Graham, in the same debate, observed that "except on matters of religion he did not know that any difference of opinion had been attended with *so much bitterness—so much anger—so much resentment, as the merits of Sir W. Symonds and the virtues of his ships.*" As to the School of Naval Architecture, the expense had been great and the fruit small; though in dissolving it, all the members had been well provided for — Fincham, Abethell, Laing, Lloyd, &c. The ships of Sir W. Symonds, the Vernon, Queen, Vanguard, &c. were before the public to speak for him; the best of other ships, too, were by *Naval men*, as the Eurydice, by Admiral Elliott, the Inconstant, by Admiral Hayes; while the Thetis, by the School, was only brought forward as an improved edition of Sir W. Symonds's ships, "with the faults corrected." As to Dr. Inman, the head of the School, "his failures as a shipbuilder were signal." The Surveyor, he said, was the "eyes of the Board of Admiralty;" and he warned them against "another Navy Board" in their new Committee of Reference.

Captain Berkeley added a remarkable testimony to one class of Sir W. Symonds's ships, by stating that his 10-gun brigs (then employed as packets) were so popu-

* Then Commander-in-Chief in the Mediterranean.

† Captain N. Lockyer died in command of the Albion, Feb. 1847.

lar that passengers used to ask "which were *Symonds's* ships," before they crossed the Atlantic. Foreigners, whenever they saw his vessels abroad, expressed the same admiration and preference for the works of "Monsieur Comme-ça."

From Capt. the Hon. E. A. J. Harris, R.N., M.P.

"8, Whitehall Gardens, April 30th, 1847.

"My dear Sir William,

"I sincerely congratulate you on the debate and division of last night, and the triumphant manner in which the ridiculous and unfounded statements of the assailants of your fame were refuted. Could I have found an opportunity, it was my intention also to have borne testimony to the great benefits the country and service have derived from the superior men-of-war of all classes which you have introduced.

"Admiral Bowles, who I know wished to speak in the same spirit, was also prevented, the debate having commenced late in the evening.

"However, I was able to put into Sir J. Graham's hand Sir F. Collier's letter about the Vernon, contained in the book you sent me some time back, and he gladly availed himself of it.

"May you long live to enjoy your fame, and believe me,

"Yours very truly,

"E. A. J. Harris."*

Respecting the Albion, Sir William records, in his Journal, that "Captain Lockyer commanded her all the time she was in commission, until his death. On his death-bed he declared that she was the finest ship in the world. He always maintained that she had not more motion than other ships, and that she could fight her lee or weather guns when nothing in the service besides could do it. Captain Freemantle joined her afterwards, with a prejudice against her. He made her sail better than she had yet done, and told Lord Auckland that she was the finest ship in the Navy, and that he should prefer an appointment to her to any other. Sir Edmund

* Captain Harris is the son of Lord Malmesbury, and M.P. for Christchurch.

Lyons saw a great deal of her, and was of the same opinion. Captain Wm. Chambers, and her Master, with others who had been all the time with Captain Lockyer, confirmed these good accounts of her. She never injured her spars, and always came in scathless when others were damaged." The reader must excuse this iteration and reiteration of the same positive facts. There was no other way of meeting the "infamous falsehoods" which were continually put in circulation by a clique of the Surveyor's opponents.

It soon became evident that the new Board of Admiralty were determined to abide by the recommendations of the Reference Committee, and, in a measure, to revert to the exploded system which Sir W. Symonds's ships had put out of fashion. The knowledge of this led to the following correspondence; the first letter containing another liberal offer from the Duke of Portland, to build at his own cost a vessel of even greater breadth than the Flying Fish, for the purpose of testing still more completely the value of beam. Lord Auckland doubted the success of such an experiment, and the Surveyor himself was unwilling to try it, especially now that his altered relations with the Board made him seriously think of resigning his post.

The Duke of Portland to the Earl of Auckland.

"Welbeck, 4th May, 1847.

"My Lord,

"I have learned, with the greatest regret, that it is determined by the Admiralty to abandon the system of shipbuilding introduced by Sir Wm. Symonds, and to substitute one of less breadth and more fulness of body below water, which is equivalent to reducing the power of carrying sail, and increasing the difficulty of propelling them through the water.

"I have, for above twenty years, paid great attention to the subject of shipbuilding. I saw the Columbine on the stocks in 1826, and I predicted—and the event has confirmed my prophecy—that she would beat all the ships that ever had been built.

"Without waiting for the event, but proceeding on the mere reason of the thing, I built, first the Clown, and afterwards, on the success of the Columbine, Pantaloon (both under the direction of Sir Wm. Symonds), whose performances astonished everybody in Sir E. Codrington's squadron. He saw her beat and outcarry all the frigates in his squadron; but beat them as a race-horse would beat a cart-horse.*

"I therefore arrogate to myself some little knowledge on the subject, and I am so vain of it, as to believe that I am not mistaken in my opinion, that if Sir Wm. Symonds's ships can be improved, it is by making them broader, but not narrower.

"I think the trials of the Flying Fish proved that a little more breadth alone was wanting to make her perfect. I should like, before I die, to put this opinion to the test of facts, and to show the folly of abandoning a system which has produced such men-of-war as never before had been seen.

"I therefore propose to your Lordship to order a brig to be built on the plan of the Flying Fish, but with her lines so extended as to give her a foot more beam, and consequently four or five inches more draught of water. If she does not answer, I will make myself responsible for the event, and pay for the cost of building her.

"I shall stipulate, however, that she shall carry the same guns as the Flying Fish; that when she is tried, Sir W. Symonds shall have the recommendation (*pro hac vice* during the cruise) of the officer who commands her; that she shall be put in perfect trim for Channel service; and that her masting shall be in proportion to her beam, as compared with that of the Flying Fish.

"I will lodge the money necessary, with pleasure.

"I have the honour to be, my Lord,

"Your Lordship's obedient servant,

"SCOTT-PORTLAND.

"To the Earl of Auckland, &c. &c.

"I shall send a copy of this letter to Sir Wm. Symonds, who does not know that I have written it."

From the Earl of Auckland.

"Admiralty, May 9th, 1847.

"MY DEAR SIR,

"The Duke of Portland, as you know, has written to me, and is desirous that we should build a ship upon the model of the Flying Fish, with this difference only, that she shall have one foot more of breadth. Before I bring this proposition

* See Chaps. III. and V.

formally, for decision, to the notice of the Board, I should be glad to have your opinion upon it. The Duke of Portland has offered to deposit the amount of the cost of such a vessel, to become forfeit in the event of her not succeeding; but the questions of success or failure are always matter of endless controversy; and I should not be inclined to try the experiment, if the proportions suggested by his Grace should appear to you and other authorities to be as open to objection, as I confess that they appear to me to be.

"Very faithfully yours,

"AUCKLAND.

"Sir William Symonds, &c. &c."

To the Earl of Auckland.

"11th May, 1847.

"MY LORD,

"His Grace the Duke of Portland had informed me that he had offered to build a sloop of war at his own expense (after the Flying Fish), with increased beam, which I attribute to his Grace's zeal in the cause of breadth of beam, as he agrees with me that no vessel can be considered fit for a man-of-war if she heels beyond the degrees of elevation and depression of her guns. As your Lordship has condescended to ask my opinion, I have no doubt that a brig superior to the Flying Fish might be built upon the dimensions suggested by his Grace. But I beg to say that with my altered relations with the Board, and with the Dockyard, I should most respectfully decline undertaking such a work; nor would my shaken nerves and declining health permit me to subject myself to the endless controversy and clamour to which your Lordship alludes.

"I shall make his Grace acquainted with the reply which I have thought it right to offer to your Lordship's note, and I feel convinced that the Duke will not press an experiment which your Lordship and other authorities consider objectionable.

"I have the honour to be,

"Your Lordship's very faithful servant,

"W. SYMONDS.

"The Earl of Auckland."

The zeal of the Duke, however, was unabated; and he continued to urge the point with the Surveyor and the authorities.

From the Duke of Portland.

"Welbeck, May 14th, 1847.

"DEAR SIR WILLIAM,

"I have been, and still am, ill, since I received your letter with the inclosures, which I return. I do not consider

Lord Auckland's letter as addressed to me, or that I am called upon to answer it. I do *not* adopt the part of your answer to Lord Auckland which I have scratched: I disavow it. The reason given in your letter for not pressing the experiment, proves how essential it is to demonstrate the falsehood of the principles adopted by the Admiralty. I presume that I shall hear from Lord Auckland himself. I think you are quite right to offer your resignation.

"Ever, dear Sir William,
"Yours very sincerely,
"SCOTT-PORTLAND."

From the same.

"Welbeck, May 20th, 1847.

"DEAR SIR WILLIAM,

"I have not heard from you since I answered your letter, in which you enclosed me a copy of your answer to Lord Auckland's letter. It is very necessary that I should know in what way you communicated to him my disavowal of your answer. I have not since heard from him.

"The reason you gave him for supposing that I should give up my intention, viz., the knowledge that he disapproved of it, was exactly, with me, the reason for the contrary.

"If he, First Lord of the Admiralty, had been convinced of the truth of my opinion, such a proof of it as I proposed would have been unnecessary. It was only because he doubted the truth of it, that for the sake of combating that dangerous error I insist upon being allowed to make the trial, and assert that it is necessary.

"Ever, dear Sir William,
"Yours very sincerely,
"SCOTT-PORTLAND."

This was followed up by a subsequent letter, about a month later. His Grace's views, as to the expediency of keeping up a supply of small craft in case of war, were amply justified in the late operations in the Baltic and Black Seas.

From the same.

"Welbeck, June 30th, 1847.

"DEAR SIR WILLIAM,

"I have received your letter with the enclosure, which I return. The letter you propose to write is quite in unison with what I have written to Lord Auckland, as far as my knowledge went, but containing the very valuable additions suggested by your superior acquaintance with the subject.

"Lord Auckland seems to me not to know the first principles of the operation of weight on ships. I have told him — That, in all probability, the ship I recommend to be built, would have no more displacement than the Daring, and that more displacement than that of the Flying Fish and her competitors is necessary, because they had not enough to enable them to carry their top weight.

"That I am quite incredulous of the possibility of dispensing with the use of small sailing vessels, in case of a war.

"That in 1812 there were more than 150 vessels of 14 guns and under, in commission, and that it seems impossible to think of replacing them with ships whose expense would be more than double. I have argued, however, that supposing that to be the case, it is worth more than the cost of ten such brigs to ascertain whether the principle of decreasing the breadth of ships is right or wrong—and that that is my objection.

"I have told him that he need have no fear of disputes about trials, if the ships are sent out in perfect trim, and ordered in turn to chase one another. In one of his letters to me, Lord Auckland represented the question about beam as decided. I therefore thought it as well to give him a parting broadside. I told him that I considered that the last Admiralty had done two of the most silly things ever done by sensible men;—First, making the expensive experiment of the Prince Albert,* at a cost of 120,000*l.*, which might as well have been tried for 8000*l.* Secondly, putting Dr. Inman on the Committee of N. A., who had shown by numerous instances of bad ships, that he knew nothing of shipbuilding.

"Ever, dear Sir William,
"Yours very sincerely,
"SCOTT-PORTLAND."

The following statements, founded on Parliamentary Returns, may find a place here. They are valuable, as showing, 1st, the comparative cheapness of Sir William's ships, not only in proportion to tonnage, but in spite of their greater tonnage; 2nd, the correctness of their build, as indicated generally, by the small mean excess of the sea (or loaded) draught over the constructed draught.

* A 90-gun ship of that name—not the Royal Albert.

I.—A Statement showing the Comparative Immersion of the New Class Ships by Sir Wm. Symonds, with those by other Constructors, from the Constructed to the Load Line at Sea.

No. of Guns.	Names.	Draught of Water. Constructed. Forward.	Draught of Water. Constructed. Aft.	Draught of Water. At Sea. Forward.	Draught of Water. At Sea. Aft.	Mean excess of Immersion.	Height of Midship Port.	From Return. No. 211. Date of Sailing.	From Return. No. 211. Captain's Names.
		Ft. in.	*Ft. in.*	*Ft. in.*	*Ft. in.*	*In.*	*Ft. in.*		
110	Queen* - -	23 4	24 4	23 7½	24 6	2¾	7 2	23rd Sept., 1844.	Martin.
120	Trafalgar - -	23 11	25 3	24 7	26 0	8½	6 0	9th July, 1845	Martin.
90	Albion* - -	23 3	24 3	23 6	24 9	4½	6 6	22nd Jan., 1844.	Lockyer.
92	Rodney - -	23 6	24 0	23 8	24 9	5½	7 4¾	9th July, 1845.	Collier.
80	Vanguard* - -	23 0	24 0	23 2	24 1	1½	7 0½	18th June, 1836.	Bouverie.
84	Thunderer - -	21 6	22 6	21 9	23 9	9	7 2½	29th April, 1840.	Berkeley.
50	Vernon* - -	20 9	21 9	20 11	22 2	3½	9 6	26th Nov., 1834.	McKerlie.
50	Raleigh - -	20 0	21 0	20 10	22 3	12½	8 11	8th Aug., 1846.	Herbert.
50	Constance* - -	21 6	22 3	21 7	22 9	3½	8 9	8th Aug., 1846.	Walker.
52	President - -	19 4	20 6	19 2	21 8	6	8 3½	29th May, 1834.	McKerlie.
40	Cambrian* - -	19 3	20 3	19 3½	21 0	4¾	8 2½	— Nov., 1841.	Chads.
36	Thetis - - -	19 0	19 9	18 10	20 4	2½	8 1½	28th Dec., 1846.	Codrington
36	Pique* - - -	19 3	20 3	19 4	20 7	2½	8 10	20th Oct., 1838. 24th Aug., 1841.	Boxer. Boxer.
36	Inconstant - -	19 6	19 6	19 4	19 8	-	7 10½	31st July, 1843.	Freemantle.
42	Thalia - - -	17 4	18 7	18 1	19 1	7½	6 11	20th Nov., 1841.	Hope.
26	Carysfort* - -	16 0	17 0	15 11	17 7	3	6 5	17th Feb., 1837.	Martin.
28	Sapphire - -	15 0	16 0	15 8	16 4	5	5 0½	29th May, 1835.	Rowley.
26	Actæon - -	15 3	16 0	16 7	16 10	13	5 0½	20th Feb., 1835.	Russell.
18	Orestes. - -	13 2	14 1	14 6	14 6	10½	4 10½	28th Oct., 1842.	Carnegie.
18	Rose - - -	11 10	13 9	13 5	14 3	12½	5 0	5th Oct., 1838.	Christie.
18	Pylades - -	12 2	13 6	14 0	14 9	18½	5 6	———, 1835.	Castle.

The ships marked thus *, by Sir W. Symonds.

II.—A Statement showing the Comparative Expense of Ships built by Sir W. Symonds, with those by other Constructors.

No. of Guns.	Names.	Tonnage.	Expense of Hull.			By whom Constructed.
			Materials.	Labour.	Total.	
			£	£	£	
110	Queen - - -	3083	60,039	22,961	83,000	Sir William Symonds.
120	Trafalgar - - -	2694	70,551	28,676	99,227	Sir William Rule.
90	Albion - - -	3083	57,068	19,081	76,149	Sir William Symonds.
92	Nile - - - -	2598	58,064	22,010	80,074	Sir Robert Seppings.
92	London - - -	2598	54,379	17,691	72,070	
80	Vanguard - -	2589	48,112	14,003	62,115	Sir William Symonds.
84	Thunderer - -	2279	59,604	16,556	76,160	Sir Robert Seppings, as "Canopus."
50	Vernon - - -	2082	37,253	11,234	48,487	Sir William Symonds.
50	Raleigh - - -	1935	33,392	12 560	45,952	Mr. Finchan.
50	Constance - -	2126	33,256	10,975	44,231	Sir William Symonds.
52	President - - -	1537	(Expense	for 1831 and	1832 not in	office).
40	Cambrian - -	1622	24,557	8732	32,289	Sir William Symonds.
36	Thetis - - -	1524	31,287	11,354	42,641	Naval School. Messrs. Reid, Chatfield and Creuze.
36	Pique - - -	1622	24,375	8626	33,001	Sir William Symonds.
36	Inconstant - -	1422	22,216	8706	30,922	Admiral Hayes.
42	Thalia - - -	1082	24,794	5933	30,727	As French "Leda."
26	Carysfort - -	913	15,651	5058	20,709	Sir William Symonds.
28	Sapphire - - -	606	15,402	4429	19,831	Dr. Inman, Naval College.
26	Actæon - - -	620	14,966	3987	18,953	
18	Orestes - - -	460	9899	2630	12,529	
18	Rose - - -	398	9315	2476	11,791	
18	Pylades - - -	433	8275	2947	11,222	Sir Robert Steppings.

III.—Expense incurred on the Hull, in building and fitting for Sea the undermentioned Ships.

	2082 Tons. VERNON, 50-gun. Built and fitted at Woolwich.	2132 Tons. CONSTANCE, 50-gun. Built at Pembroke, fitted at Devonport.	1939 Tons. RALEIGH, 50-gun. Built and fitted at Chatham.
	£	£	£
Materials -	*37,254	33,256	33,392
Labour - -	11,234	10,975	12,560
	48,487	44,231	45,952

	1633 Tons. PIQUE, 40-gun. Built and fitted at Devonport.	1625 Tons. CAMBRIAN, 40-gun. Built at Pembroke, fitted at Devonport.	1533 Tons. THETIS, 36-gun. Built and fitted at Devonport.
	£	£	£
Materials -	24,375	24,557	31,287
Labour - -	8,626	8,732	11,354
	33,301	33,289	42,641

Raleigh (by Mr. Fincham), cost in labour - -	more than Constance -	£1,585.
	more than Vernon -	£1,326.
Thetis (by Messrs Chatfield, &c.), cost in labour	more than Cambrian -	£2,622.
	more than Pique - -	£2,728.
Thetis cost in materials - - - - - -	more than Cambrian -	£6,730.
	more than Pique - -	£6,912.
Thetis cost in labour - - - - - - -	more than Constance -	£379.

* The materials of the Vernon were valued upon the old prices of 1831-32 before the revision and reduction took place in the present rate of the Valuation Book.

The following comes from the eminent engineer to whom we are indebted for the construction of new London Bridge and other great works.

From Sir John Rennie.

"Whitehall Place, 10th June, 1847.

"My dear Sir William,

"Many thanks for yours of yesterday. I regret however most sincerely to hear that you are unwell. Unfortunately, your case is that of too many other great men, who have done great service to their country, and are calumniated and persecuted by the ignorant and malicious multitude. The only way to meet it, is by a firm and upright bearing, supported by the consciousness of having done one's duty, and contributed as far as lay in one's power to the benefit of mankind. This is your case, and depend upon it, posterity, at least, will do you justice. Bear up, therefore, and have com-

passion on your enemies. This, it is true, is hard to practise; but after all it is the best way, and in the end gains the best consolation, and you will have your reward.

"We try the Oberon* to-morrow, I suppose you know; she is admired by everybody, and I am much mistaken if she will not do you great credit.

"Believe me, my dear Sir William,

"Ever most sincerely yours,

JOHN RENNIE.

"Sir W. Symonds, &c. &c."

In a short time, the crisis for which Sir William Symonds had prepared himself, was brought on by the issue of directions for mutilating some of the ships commenced on his principles, but which were now to be altered agreeably to the plans laid down by the Committee of Reference. He tried in vain to save them; and at length, upon being ordered to destroy their symmetry and proportion himself, he felt he had no alternative but to obtain a medical certificate and claim retirement. "Lord Auckland (he says), yielding to the misrepresentations of my opponents, consented to sacrifice me. He told my friend that I was uncompromising and impracticable; meaning, I suppose, that neither threats nor fear of consequences will make me abandon my principle." These friends warmly exerted themselves on his behalf. Admiral Bouverie went to the Admiralty, and learnt that if he consented to retire, a pension would be guaranteed of 1000*l.* per annum. Admiral Bowles presented a Memorial of his services, in which he merely asked for the pension due to him for his civil service, accompanying it with a certificate from the Acting Chief Secretary at Malta, to explain what were his services during the nine years he served that Colony as Magistrate and Intendant of the Port. "At the same time I stated that I had expended a *thousand pounds in my three journeys.* Firstly to St. Petersburg, Sweden and Denmark. Secondly, to the Black Sea, and the Crimea;—and thirdly, to the timber

* One of Sir W. Symonds's vessels.

districts of the Apennines; in all of which, I flattered myself that I had performed useful service; and Mr. More O'Ferrall* had promised that my expenses should be paid if I reached home before he left the Admiralty. But my application on this score was received in dead silence; and the Treasury awarded me a retirement of 500*l.* per annum,—not a fraction more than I had a legitimate right to claim." His memorial, sent through Admiral Bowles, was to this effect:

"*To the Right Honourable the Lords Commissioners of the Admiralty:—*

"The humble Memorial of Captain Sir William Symonds, Knt., R.N., Surveyor of the Navy, sheweth,—

"That he hath been in Her Majesty's Service for a period of fifty-three years, having joined the Navy in September, 1794, of which period he served twenty-two years in active service afloat in the war, with little intermission, in the Channel Fleet, the Western Squadron, at Lisbon, in the Mediterranean, West Indies, Brazil, North American Station, &c., under the most distinguished officers. He was in one general action, and several minor engagements, having been present at the capture of about seventy vessels from the enemy.

"That your Memorialist held a place of trust under the Colonial Office, in the Civil Service at Malta, from 1819 to 1828, a period of nine years; that he has now completed his service of fifteen years as sole Surveyor of the Navy, besides performing similar duties at Woolwich in 1831-32, for a period of one year,—during all which time *more than two hundred vessels have been built*, are building, or ordered to be built on his lines; and he has endeavoured with unremitting and unmitigated zeal, to improve the Navy in all its ramifications. He has received their Lordships' thanks for those improvements, and for compiling an Essay on the Navigation of the Adriatic, which he explored in his own vessel, in the year 1823.

"That your Memorialist has visited the Continent at his own expense to obtain information regarding the fleets of foreign countries; his reports, dated in September, 1839, September, 1841, and December, 1843, laid that information before the Board. The two former furnished their Lordships with

* The Right Hon. R. More O'Ferrall was Secretary to the Admiralty, and to the Treasury, from 1839 to 1841.

the state of the Navies of Russia, Sweden, Copenhagen and Turkey. In 1840, your Memorialist visited Brest, and reported on its naval establishments; and on December 28th, 1843, on the Timber districts of the Apennines.

"That your Memorialist has also reported on the New Forest and the Forest of Dean, and has been the means of improving them, and supplying them with acorns of a superior kind. He has been instrumental in the introduction of timber from Cuba and New Zealand; and your Memorialist begs particularly to refer to the state of the Model Room at Somerset House, which has been created under his direction.*

"That your Memorialist, in a minute dated the 17th February, 1836, a copy of which accompanies this, recommended and established a Classification of the masts, yards and sails of the Navy, the books of dimensions, and all the elaborate directions on which subject, form an economical and convenient system.

"That your Memorialist has met with several serious accidents, particularly that which occurred when returning from the duties of his office at Pembroke, on the 22nd of September last, which has left his health in such an impaired and precarious state, that he feels disposed to take advantage of the eleventh paragraph in the Act of Parliament, William IV. chap. 24th. His age, on the 24th of next September, gives him a legitimate right to claim retirement, should their lordships not consider that the medical certificates appended hereto prove that he is unfit to serve during the intermediate period.

"Your Memorialist humbly prays that his long and arduous services and other claims will be favourably considered by their Lordships, and that he will be awarded a retiring pension equal at least to that granted to his predecessor (who had always one or two other surveyors to assist him), on account of 'the inadequacy of his private fortune to maintain his station in life.' And he prays that his travelling expenses and subsistence, amounting to the sum of a thousand pounds, be paid for those journeys taken expressly for the advantage of the public service. And your Memorialist will ever pray, &c.

"W. SYMONDS.

"July 7th, 1847."

Reply of the Treasury.

"Treasury Chambers, 5th Oct. 1847.

"SIR,

"With reference to your letter of the 28th ult. I am commanded by the Lords Commissioners of Her Majesty's

* See Note in Appendix.

Treasury to acquaint you for the information of the Lords Commissioners of the Admiralty that, considering the testimony borne by their Lordships to the value of the services of Captain Sir Wm. Symonds, as well as to the zeal and assiduity with which they were rendered; and adverting also to the fact that although he held no ostensible office from 1828, when he resigned his appointment at Malta, until 1832, when he was appointed Surveyor of the Navy, he was during the interval employed in the service of the Dockyards, and that he has therefore virtually served in civil employment for a period of 28 years; my Lords concur in the recommendations of the Lords of the Admiralty that a retired allowance of five hundred (500*l.*) pounds a year should be granted to Sir Wm. Symonds in addition to his half pay, as a special case under the 16th Sec. of the Act 4 & 5 Will. IV. c. 24.

"I am, &c.

"C. E. TREVELYAN.

"To the Secretary of the Admiralty."

From the Secretary of the Admiralty.

"Admiralty, 6th October, 1847.

"SIR,

"I am commanded by my Lords Commissioners of the Admiralty to transmit to you the enclosed copy of a letter from the Lords of the Treasury concurring in the recommendation of my Lords, that you should be granted a retired allowance of 500*l.* a year, in addition to your half pay; and my Lords desire me to acquaint you that they have much satisfaction in transmitting the document in question to you.

"I am, Sir,

"Your most obedient servant,

"H. G. WARD.

"Captain Sir William Symonds,
"Somerset House."

Sir William Symonds retired in October. As soon as his intended resignation became known, he received various letters of condolence and sympathy from his friends, some of which deserve to be given as specimens of the estimation in which his services were held by his professional brethren.

*From Capt. R. Harris, R.N.**

"Osborne Terrace, Southsea,
"July 20th, 1847.

MY DEAR SIR WILLIAM SYMONDS,

"I cannot help feeling glad, on your own account, that you have retired from public life. You have nevertheless the satisfaction of your own conscience, and the knowledge that your name will not stand alone in history; for when your enemies (who have surreptitiously adopted *your* plans, and built their houses on your foundation) are passed away, like Galileo and Columbus, your name will survive them all, and stand in its true position, as that of the greatest benefactor that the British fleet has ever had,—as one who has not only had the skill but the *courage* to improve it.

"I can only add that my warmest and best wishes attend you always, and my gratitude is not confined to the many acts of individual kindness that I have received; but I thank you, as a lover of my country and of my profession, for the service you have rendered to the one, and for the comfort and safety you have added to the other. If you did not know me to be above flattery, I should not have ventured to have written thus. Pray make my compliments acceptable to Lady Symonds, and with our united regards,

"Believe me,
"My dear Sir William Symonds,
"Yours most faithfully,
"R. HARRIS."

From Capt. W. Fisher, R.N.

"26 York Street, Park Square,
"30th July, 1847.

"MY DEAR SYMONDS,

"I rejoice for your sake that you retire. You have done far more than your share of work. And every man who knows or cares anything about it, is fully satisfied that you have performed most important services, under difficulties and disadvantages that must have paralysed an ordinary mind. Let those who profess to doubt look what a Navy you found and what a Navy you leave.

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* Now Captain of the Illustrious, training ship (for young cadets), at Portsmouth. This scientific officer is the author of "Remarks on Heaving down the Melville, in China."

"What confusion and disorder you found in details, and how admirably classed and regulated you leave them.

"You may safely rest upon your hard-earned honours. Future Naval historians will do you justice. You can afford to laugh to scorn any attacks made upon you; and I trust I shall see that same energy, that strength of mind which has carried you victoriously through so many difficulties and trials, now, in your peaceful retirement, regardless of carping rivals, condensing its powers upon the one thing needful; and giving you peace and contentment in this life by enabling you to look forward with a hopeful confidence to eternal happiness in the life to come.

"I have sought you but little amidst your labours; and now being fixed here and seldom going from home, we shall meet rarely, if ever; but our early friendship is still warmly remembered; and no one wishes you peace and happiness for your remaining years more sincerely than

"Your old friend,

"WILLIAM FISHER.

"Sir Wm. Symonds."

*From Admiral the Hon. D. P. Bouverie.**

"Clyffe Hall, Devizes,
"Oct. 14th, 1847.

"MY DEAR SYMONDS,

"I thank you for your letter received this morning, and for so kindly remembering your promise that I should hear from you whenever anything was determined about your retiring.

"I regret that your retiring Pension is not nearer the 'guarantee' to which you allude; but I really suppose in fact that the Board was not able to secure for you the amount to which the guarantee referred.

"I sincerely hope, however, that every day that passes away will make you more and more satisfied with the step you have taken in retiring from active employment, and that you will find you have enough for your comfort and happiness in every respect.

"I rejoice that you have recently received such satisfactory accounts of the Albion and Vanguard.

"I think, and have long thought, that your name will be handed down to posterity, as one to whom the country is greatly

* Admiral Bouverie died 1850.

indebted in having introduced a great, important, and beneficial alteration in the construction of our ships of war, which is not likely ever to be materially departed from.

"The plans recently thought of for altering some of your ships are not more than inconsiderable deviations from the original plan.

"Accept Mrs. Bouverie's and my kindest regards, and believe me,

"Very sincerely yours,

"D. P. BOUVERIE."

The next is from his steady friend and patron, whom he had consulted about his retired allowance, which by the Treasury Order was fixed at a much lower amount than he had been promised, or than his great services entitled him to claim.

From the Right Hon. Sir James Graham, Bart., M.P.

"Grosvenor Place, 26th November, 1847.

"MY DEAR SIR WILLIAM,

"You do me justice in your confident belief that my feelings towards you are most friendly, and that my opinion of your merits as an officer and Naval constructor remains unchanged. On the whole, for your own sake, and for the peace of the remainder of your days, I am not sorry that you have retired from the office of Surveyor of the Navy. When the angry jealousies of the present time shall have passed away, the full extent of your services will be recognised; your works will attest your merits, and the superiority of your ships will secure the memory of your name. For the *principle* of your construction is established, and will continue to be the model.

"You are now returned to your profession and are fairly entitled to partake in its honours and advantages. * * * I should be most happy to see you appointed a Naval *aide-de-camp*, and any good fortune which I trust awaits you will give me real pleasure.

"I am always, yours sincerely,

"J. R. G. GRAHAM."

At a later period Sir William was appointed a Naval aide-de-camp to the Queen, 22nd July, 1853.

From Admiral Bowles, M.P.

"London, December 24th, 1847.

"MY DEAR SYMONDS,

"I am sincerely sorry to have twice missed seeing you, but your arrivals and departures have been so rapid that neither your friends nor the 'Morning Herald'* have had any intelligence of your movements. I still hope, however, to have an hour's talk with you before you leave England, because I am anxious to know in what way (should any favourable opportunity offer), I can be of use to you at the Admiralty, and what your views are with respect to any future professional employment. There is every reason to believe that a few days will bring us most decisive and satisfactory reports from Sir C. Napier, as well as Sir Wm. Parker, with respect to your ships generally, and the Queen and Albion in particular; and as soon as Parliament meets I intend moving for copies of all these papers, which will then be made public *regularly* and *officially*.† Both Milne and Sir H. Leeke speak in the highest terms of the Queen, and I understand that Napier's tone is totally changed. Truth must prevail at last.

"Have you ever thought again of preparing some paper for Walker, which may enable him on his arrival to obtain at once a general idea of the state of the Navy, and to see those points to which his attention should be most seriously directed? I think, as you will probably not meet, that it is incumbent on you for the good of the service to do this. Nobody else can do it so satisfactorily.

"I shall always look back with pride and pleasure on any support or assistance it has been in my power to afford during your trying and painful struggles for the improvement of our Naval architecture. Justice will be done to your efforts at last. I shall be here all next week. My sister joins in very kind regards to Lady Symonds and yourself, with,

"Yours most truly,

"W. BOWLES."

The following ships, on the Surveyor's lines, were launched this year, 1847:—

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* The usual vehicle of the attacks upon the Surveyor.

† See "General Abstract of Reports on Sir W. Symonds's ships, &c."—*Parl. Paper*, No. 365, 1848. The substance of it is quoted in this Memoir.

Lion,	80 guns	- -	Pembroke, 29th July.
Sybille,	40 guns	- -	„ 15th April.
Arachne,	18 guns, sloop	-	Devonport, 30th March.
Terpsichore,	„ „	-	Blackwall „ „
Camilla,	16 guns, brig	-	Pembroke, 8th September.
Atalanta,	„ „	-	„ 8th October.
Arab,	12 guns, brig	-	Chatham, 31st March.
Elk,	„ „	-	„ 27th September.
Heron,	„ „	-	„ 27th September.
Britomart,	8 guns	„ -	Pembroke, 12th June.
Dart,	3 guns	„ -	Sheerness, 17th March.
Oberon, (iron)	st. ves.	364 h. p.	Deptford.
Caradoc, (iron)	„	350 „	Blackwall.

The *Lion*, line-of-battle-ship, has been converted into a screw. The *Caradoc* was employed as a mail-packet on the Holyhead station. She was built in Ditchburn's yard; the *Terpsichore*, in Wigram's yard.

In January, 1848, Sir William Symonds, whose winters after his retirement from office were usually spent abroad, received the following communication from the then Prime Minister.

"Richmond, January 11th, 1848.

"SIR,

"As a testimony of your able services as Surveyor of the Navy, I propose to name you to the Queen as one of the Civil Companions of the Order of the Bath.

"I remain,

"Your faithful servant,

"J. RUSSELL.

"Sir William Symonds."

In accepting the honour proposed to be conferred upon him, Sir William thought it right to address this explanation to the Premier:—

To the Right Hon. Lord John Russell, M.P.

23rd February, 1848.

"MY LORD,

"Having understood that your Lordship had honoured me with a communication, which has been forwarded to Malta,

I applied to the Hon. Colonel Keppel, in order to discover the tenour of that communication, and I have learnt that it contained an offer of the Companionship of the Bath, as a reward for my public services. I have informed Colonel Keppel that I should feel it imperative on me to accept *any* mark of favour and reward from Her Majesty's Government with gratitude; but I need not inform your Lordship that a Companionship of the Bath is secondary in point of honour to the distinction of Knighthood conferred on me by his late Majesty in 1836; and therefore I presume can only be considered in the light of a decoration, which would not advance me. Your Lordship will probably allow me to remark, that as the mark of favour to be conferred upon me is for civil service, my position on the Navy List is immaterial.

"I have the honour to remain, with much respect,
"Your obedient faithful servant,
"W. SYMONDS."

The present Surveyor, Captain Sir Baldwin Walker Bart.*, was appointed, on the 5th of February 1848, to succeed Sir William, aided by two Assistant Surveyors. As Yavier Pasha, he commanded the Ottoman fleet in 1841, and is a Vice-Admiral in the Turkish Navy, which was regenerated by his exertions. Like his predecessor, he is known to be a thorough sailor, — able to fetch out and to control all the qualities of a ship.†

* Created a Baronet, 1856.

† By an Admiralty Minute of 2nd June, 1848, my Lords state their opinion that the principal duties of the Surveyor of the Navy are rather to take the general superintendence of the *matériel* of the Navy, to prepare and submit the programme of works for the year, to visit the yards, &c., than to *prepare in detail the lines of ships to be built.* To assist and advise in matters of construction, Mr. J. Watts, master shipwright at Sheerness, and "one of the most eminent and experienced" of that class, was appointed Second Assistant—the First Assistant being Mr. J. Edye. A Council of Science (composed of Messrs. Fincham and Read) was formed, to advise their Lordships and the Surveyor, when called upon. It is added, that the Board expect that all plans of new ships would be laid before them by the Superintending Lord (then Lord J. Hay) and the Surveyor; and, in considering them, not only the "good construction of particular ships is to be looked at, but the clear establishment of principles." Respecting the Surveyor, they say "they look more to his sound practical knowledge, and ability as a seaman, than to his qualifications as a ship-builder." The two

From Capt. Sir B. Walker, Bart., R.N.

"Somerset House, February 15th, 1848.

"A thousand thanks, my dear Sir William, for your kind congratulations and good wishes, all of which believe I feel deeply; and I will only express a hope that I may remain long enough in office to prove to the service and country how much we have cause to feel grateful to you for the improved state of our Navy. I have much to say to you, but as I am informed that you are coming to town this week, I will wait until I have the pleasure of seeing you. I will not now take up your time by adding more than to beg that you will always believe me,

"My dear Sir William,

"Your sincere and grateful friend,

"W. B. WALKER."

The following, from the Commander-in-Chief in the Mediterranean (then protecting or watching the Neapolitan dominions), was written when almost every throne in Europe was overturned by the convulsions produced by the French revolution of 1848. The Odin had just landed Ibrahim Pasha in Egypt, after his visit to England. Lord Minto was on the point of leaving Naples for Rome on his return homeward. Captain T. M. C. Symonds, in the Spartan, was at this time at Athens.

From Admiral Sir W. Parker, Bart., Commander-in-Chief, Mediterranean.

"Hibernia, Naples, April 7th, 1848.

"MY DEAR SYMONDS,

"I am sorry to find by your last letter of the 13th February, that we have little chance of seeing you in the Medi-

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Assistants are to prepare the drawings, which the Surveyor would submit to the Board with his remarks; and if judged expedient, they would be referred to the Council; which, after all, is only summoned—if ever summoned—on very particular occasions. Now and then, if a ship of a new plan of construction is to be built, an order is sent to the Surveyor detailing the class, guns, provisions,—in fact, all the weights she is to carry; and calculations are made, *de novo*, accordingly. But in most cases it seems to be the practice to follow existing models as near as may be, taking a plan of a particular ship for each rate, with a few improvements or modifications.

terranean this spring, and considering the political chaos into which all Europe is now plunged, I think you have decided wisely; for it is quite uncertain where you might find your sailor son.

"I heard with regret of your health having suffered so much, but I do not wonder at it, from the furnace of annoyance to which you were latterly subjected. I hope you will now regain strength and comfort, and you may rest satisfied that all your ships do well. The whole sail fast. I think the Queen is the finest that was ever built, and your fiercest detractors cannot rob you of the merit of having opened the road to perfection. Superb and Vanguard move like frigates. Albion is a noble ship, and certainly sailed much better during her last short cruise with me; indeed vastly well. Bulldog steams fast, and all the steamers would sail swiftly if they could but disconnect their engines cleverly. I wish they had put lighter engines in Retribution, for I thought she was overloaded. The Terrible is weighted more in accordance with the tonnage, and certainly answers well. * * * All the world is mad, I think; and it will be a miracle if we escape without war.

"Believe me, my dear Symonds,

"Always faithfully and sincerely yours,

"W. PARKER."

The Frolic, mentioned in the next letter, as tried against Sir William's 12-gun brig, was a brig of 16 guns, built in 1842 by Captain Hendry, formerly senior student at the Naval College.

Commander E. M. Lyons to the Duke of Portland.

"H.M.S. Pilot,
Madeira, September 19th, 1848.

"MY LORD DUKE,

"I have the honour to enclose my report of the Pilot's sailing to Sir Charles Napier. I hope your Grace will be pleased with it. It appears to me to be a great triumph for the Pilot to have beaten the Frolic so very much in strong winds and a high sea, with the wind on the quarter. The Frolic is certainly superior to us off the wind, in light winds, and on a wind: with the wind light and a *very heavy* head swell, she has a trifling advantage; but under all other circumstances whatever, either on or off the wind, the Pilot is very superior, and the more wind there is the more conspicuous it becomes. I was unable to try on a wind since leaving Cork,

not being justified in taking the vessels so much out of the way; and as I conclude the Pilot's superiority on this point is undisputed, it is of little consequence.

"I have the honour to be,
"My Lord Duke,
"Your very faithful and obliged servant,
"E. M. LYONS."*

According to another report of Commander Lyons, the Pilot sailed admirably well, carried her guns with ease, had ample stowage and accommodation for all, and "would work through the eye of a needle." "What more," he adds, "do you want for a man-of-war?"

Of ships on the lines of Sir W. Symonds, the following were launched this year, 1848:—

Aboukir, 90 guns - - -	Devonport, 4th April.
Colossus, 80 „ - - -	Pembroke, 1st June.
Mars, 80 „ - - -	Chatham.
Meeanee, 80 „ - - -	Bombay.
Diamond, 28 „ - - -	Sheerness, 24th July.
Jumna, 16 „ brig - -	Bombay.
Bermuda, schooner - - -	Bermuda.

The *Colossus* was launched 1st June. Her dimensions are 277 ft. by 57 ft. Converted into a screw steamer, she figured in the Baltic, 1854–55. The *Aboukir* is 241 ft. by 60 ft. 1¼ in. beam; both she and the *Mars* have been lengthened for screws. The *Meeanee* and *Jumna* are teak-built ships, by the Parsee shipwrights; the former is a screw. The *Diamond* is 140 ft. long, by 42 ft. 2 in. beam.

This year there were 26 docks and 45 building-slips in all the royal Dockyards, a number which has since been increased. At Portsmouth there were 8 docks and 5

* This young and enterprising officer, the son of Admiral Lord Lyons, died of a wound received on shore at Sebastopol, 1855, after most active services in the White Sea and Sea of Azoff.

slips; Plymouth, 4 docks and 6 slips; Pembroke, 1 dock and 14 slips; Deptford*, 2 docks and 5 slips; Woolwich, 3 docks and 7 slips; Chatham, 4 docks and 7 slips; Sheerness, 5 docks and 1 slip. Of the whole, 31 were available for first rates. Most of the slips were covered with iron or zinc; at Devonport four roofs were copper.

The progress of building a ship is measured by *eighths;* and, this year, there were on the stocks, $\frac{24}{8}$ (equal to 3 whole) ships of the line, $\frac{19}{8}$ frigates, $\frac{22}{8}$ smaller vessels, $\frac{39}{8}$ steam vessels, making about 19,000 tons building; while 199 vessels underwent various repairs. The average expenditure was 62,000 loads of timber, "thick stuff," (*i. e.* thick plank above $4\frac{1}{2}$ inches), and plank. Three or four new line-of-battle-ships a year are thought enough in time of peace.

In 1849, the Thetis, one of the best productions of the Scientific Committee at Chatham (who built her in 1846, borrowing to a certain extent the proportions of her hull, masts, yards, and sails from Sir William), was signally beaten, after several trials, in all weathers, by the Surveyor's Spartan, a vessel of little more than half her capacity†, commanded by Captain T. M. C. Symonds.

From Admiral Sir William Parker, Bart., Commander-in-Chief.

"Malta, 11th June, 1849.

"My dear Symonds,

"I flatter myself you will receive satisfaction from the result of nine trials of sailing between the Thetis and Spartan; which has proved a decided superiority in the weatherly properties of the latter, more especially in strong breezes and a rough sea. The Thetis seems to have the advantage, generally, in running. I certainly expected that the Spartan

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* Discontinued as a building yard, 1832; opened again in 1846, for steamers, but only for a short time.

† Tonnage of Spartan, 918; of Thetis, 1533. The old Thetis was wrecked off Cape Frio, 1833, with specie on board.

would beat her in good fresh breezes, close hauled, when the sea was not very high; but in very strong winds and heavy sea, I scarcely thought it possible that your little ship could have contended so successfully against one of so much greater power. Captain Codrington says, the Spartan was most perfectly handled, and that she really astonished him; for be it remembered, that up to this trial, the Thetis certainly had the advantage of every ship that she sailed against, in my presence, or that was reported to me; and she had been in dock a year after the Spartan. The copper of both ships, however, from hogging, &c., appeared in very good order. Several exercises between the two ships were also practised by my order, and in these the Spartan invariably excelled, as I was quite sure she would; and she was likewise mustered and inspected in her preparations for battle with a most creditable report. Be assured that Captain Codrington has done your son full justice; he is too honourable to do otherwise.

"The last inspection for battle made by Sir L. Curtis at Malta, in May, 1847, reported the clearance for quarters so inconceivably rapid, with only one hour's notice to the acting Captain, Wilmot, who had joined her only the day before, that I expressly ordered Codrington to take her altogether unawares, which he did; and the first shot was actually fired at a target in 4½ minutes; quite as quick in my opinion as it ought to be, to be done properly. I therefore consider the result most satisfactory. I am very glad that these trials of sailing have been made, although I believe both the Captains would gladly have been excused. Both ships had been long enough in commission for the Captains and officers to know their virtues and vices if they had any. I considered the Thetis had advantages in having been more recently docked and built, and being of much larger dimensions.

"The preparations for the trial were made on this wise. Both Captains were ordered to report the draught of water at which they considered themselves in the best sailing trim. It happened, singularly enough, that with three months' provisions, six months' stores, and water complete, they were generally at the desired draft. The Thetis was therefore directed to complete accordingly, and the Spartan to take in six weeks' provisions and as much weight, in old naval stores (to be taken to England) as would bring her to the desired trim. Both Captains were satisfied with the arrangement, and both have exerted their best skill. The Spartan was to complete with provisions at Gibraltar, if necessary. She arrived there on the 30th ult.; probably before this reaches you she will be in England, when you will

no doubt have the fullest account of this competition from your son. I will only add, that I have found him a zealous and able officer, quite up to his work in every way, and likely to shine most in times of difficulty, when professional energies may be called forth. I should be very glad to see him sent out again in command of a larger ship of your construction. I suppose the Queen will soon be under Captain Wise's pendant. I trust she will not retrograde while my flag flies in her. You may make yourself easy about your ships; they will always do well; but *you must not be surprised if others, acting on your principle, and perhaps taking your midship section, build as good, perhaps better, ships.*

"I suppose I may be out here another year, if I live so long, but I do not calculate on more. Italian politics are, however, in a very precarious way, and a European war may blaze forth at any moment. Pray make our united regards, and always believe me,

"Yours most sincerely and faithfully,

"W. PARKER.."

*From the Right Hon. Sir Charles Wood, Bart., M.P.**

Downing Street, July 5th, 1849.

"DEAR SIR WILLIAM,

"Nothing can be more satisfactory than Sir W. Parker's letter, and his account both of your son and your ship. It is evident that he knows how to handle her, and she answers to his bidding.

"I give you joy with all my heart, of both.

"Yours truly,

"C. WOOD.

"Captain Sir W. Symonds."

From the Right Hon. Sir James Graham, Bart., M.P.

"Grosvenor Place, 5th July, 1849.

"MY DEAR SIR WILLIAM,

"I have read with great pleasure Sir William Parker's letter. It fully sustains the character of your ships, about which I have never entertained a doubt; and it must be doubly gratifying to your feelings, because the reports of the merits of your son is sustained by one of the highest authorities in the British

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* At that time Chancellor of the Exchequer.

Navy. Sir William Parker's observations with respect to *modern builders*, who may *adopt your principles*, and *profit by experience*, are most just. You laid the foundation of the better system. The public is *indebted to you for the germ of the improvement*, which constitutes the real merit others may appropriate to themselves. You have had your share of obloquy; but I at least have endeavoured to prove my sense of your important public services.

"I am,

"Yours very truly,

"J. R. G. GRAHAM."

A report, in August, that the Retribution, one of Sir W. Symonds's steamers, was to have her engines reduced to 400 horse-power, led the Duke of Portland to write to Sir William, urging him to remonstrate against such a "prostitution of the vessel's power." "If your remonstrances are disregarded, it is not your fault; but it would be your fault if you did not make them." She was capable of easily carrying engines of 500 horse-power, such as were originally intended, and would carry heavier engines if she had the tubular boilers. Sir William thereupon addressed a communication to the First Lord, Sir Francis Baring (who had succeeded Lord Auckland* at the Admiralty, 19th January), strongly advising that the Retribution should retain her engines, with the substitution of tubular boilers like the Terrible's. This, he observed, from the diminished size and position of the boilers, would give the vessel proper stability, and enable her to carry more weight of coals low down. Possibly, as in the case of the Terrible, it would give her more power than would be necessary for common purposes; but there would be seldom need for her to work up to that power.

"When towing a large vessel, she could not possess too much power; while the parts of such powerful engines will be able to

* The Earl of Auckland died, 1849.

sustain that full power when heavy work is to be performed. On the other hand, I am fearful that engines of only 400 horse-power would not have strength sufficient in their component parts to subdue the resistance of a large ship in tow. I beg leave to enclose a letter which I before had the honour to lay before you, but which was not acknowledged, explanatory of the circumstances which originally marred the full success of the vessel in question; and I beg also to refer you to other observations and explanations which I deemed it right to lay before the Board at a former period.

"In justice to myself I may here remark, that all the disappointments which have happened are attributable to the Steam Department; and I may naturally ask, why should vessels fail in speed which are a *fac simile* of vessels which have answered well, viz. the Bull-dog, Fury, Sphynx, and Devastation? or why should the two latter vessels have lost speed since they became dependent on the Steam Department? which I believe cannot be with truth denied. And I must further and very respectfully call your attention to the vast disparity in power which will exist, if the Retribution, of 1641 tons, has only 400 horse-power, while the Sidon and Odin, which are more than 300 tons less in measurement, possess 160 horse more power. I will not expatiate further on this subject, than by solemnly declaring, that I am confident that, with her present engines and tubular boilers, the Retribution would prove the most powerful and effective steamer in the British navy.

"Relying on your justice and indulgence upon a subject of such importance,

"I have the honour, &c.,

"W. SYMONDS.

"To Sir F. Baring, Bart., M.P., Admiralty."

The serious mistakes which resulted from the absence of a proper communication between the Engineering and Ship-building departments, before a steamer was launched or altered, have been already noticed; but this course of independent action on the part of the former has been corrected by placing steamers effectually at the Surveyor's disposal.

Finding his remonstrances were unheeded, Sir William was induced to place them in a more formal shape before the Board, in September, in a letter addressed —

"*To the Secretary of the Admiralty.**

"SIR,

"Having ascertained that it is contemplated by my Lords Commissioners of the Admiralty to reduce the power of the Retribution's engines, by substituting engines of 400 horse-power for those at present in her of 800 horse, I have deemed it to be my duty to the public service and to myself, to lay a respectful remonstrance before Sir Francis Baring, and I have also explained my views on the subject to Sir Baldwin Walker.

"But as the replies which I have received leave the matter in a state of uncertainty, I have the honour to request that you will move their Lordships to reconsider the subject; as I feel convinced that, on account of the size and weight of the Retribution, the measure contemplated will render her slow and ineffective as a steam frigate for war purposes; and that it will be impossible for her to compete with those steam vessels of less tonnage and displacement whose steam power is so much greater. This is instanced in the absurd disparity between the Retribution when so fitted, and the Sidon, Odin, Sphynx, the late Avenger,† and others. I earnestly, but very respectfully, suggest, that all she requires to make her the fastest and most efficient frigate in the service, is to change her present boilers for tubular ones, as I recommended to Sir G. Cockburn and other members of the then existing Board, before she was launched; which would give her sufficient stability, and enable her to work with half her power when circumstances—such as towing the largest men-of-war, or a necessity for the greatest speed—might not require the exertion of all the power she would then possess.

"I have the honour to be, &c.,

"W. SYMONDS."

The vessels on Sir W. Symonds's lines launched this ear, 1849, were as follows:—

Arethusa, 50 guns	- - -	Pembroke.
Octavia, 50 „	- - - -	„
Niobe, 28 „	- - - -	Devonport.
Desperate, st. ves. 400 h. p.	- -	Pembroke.

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* J. Parker, Esq., M.P., in succession to Sir H. G. Ward, appointed Lord High Commissioner of the Ionian Islands, in May.

† Wrecked 1847. See p. 346.

The *Arethusa* and *Octavia* are sister frigates, of the same tonnage, 2127 tons each. The *Desperate*, of 1038 tons, is now a screw.

Since 1849, the brigs, *Mosquito* 16, *Kangaroo* 12, *Despatch* 12, *Martin* 12, *Liberty* 12, *Squirrel* 12, have been built and launched.

These were the latest complete productions of Sir W. Symonds. With those in the preceding lists, they amount to 99 sailing vessels and 67 steamers, or 166 vessels of all classes, on his principles of construction, launched since 1826, when the *Columbine* first appeared. This number is exclusive of three (undated) schooner gun-boats, Nos. 1, 2, and 3, built for the Lakes of Canada; besides several hoys, lighters, &c., for service in the Dockyards at home.

The following first-rates, commenced by Sir W. Symonds — some of them ten or fifteen years back — are still building, but with such material alterations (chiefly in length, to adapt them for screws) that they no longer follow his characteristic proportions, and can scarcely claim to be considered his designs, though occupying a place on his list. They are the *Prince of Wales* 131*, *Victoria* 121, *Royal Frederick* 116†, and *Windsor Castle* 116. Two others, the *Marlborough*, and *Royal Sovereign*, of 131 guns each, were launched, the former on 31st July, 1855, the latter on April 25th, 1857.

* The *odd* gun, which so frequently occurs in the rating, is an enormous 93-cwt. pivot-gun at the bows.

† Royal Frederick, a fine three-deck ship, modelled after the Queen; 204 ft. long by 60 ft. beam; tonnage, 3099. She has been on the Portsmouth stocks more than twenty years, and ready for launching ten years, having been kept to see if the dry rot would show itself. It has appeared in the keel, &c. She is to be lengthened to a screw of 131 guns. Marlborough (lengthened) is 245 ft. by 61, and 4000 tons. Royal Sovereign, 280 ft. 10 in. by 60 ft. ½ in.; 3765 tons. She has been lengthened 35 feet, viz. 23 ft. amidships, for the engines; 7 ft. at the stern, for the screw; and 5 ft. at the bow. The Duke of Wellington was a sister ship to the Queen, and at first called Windsor Castle.

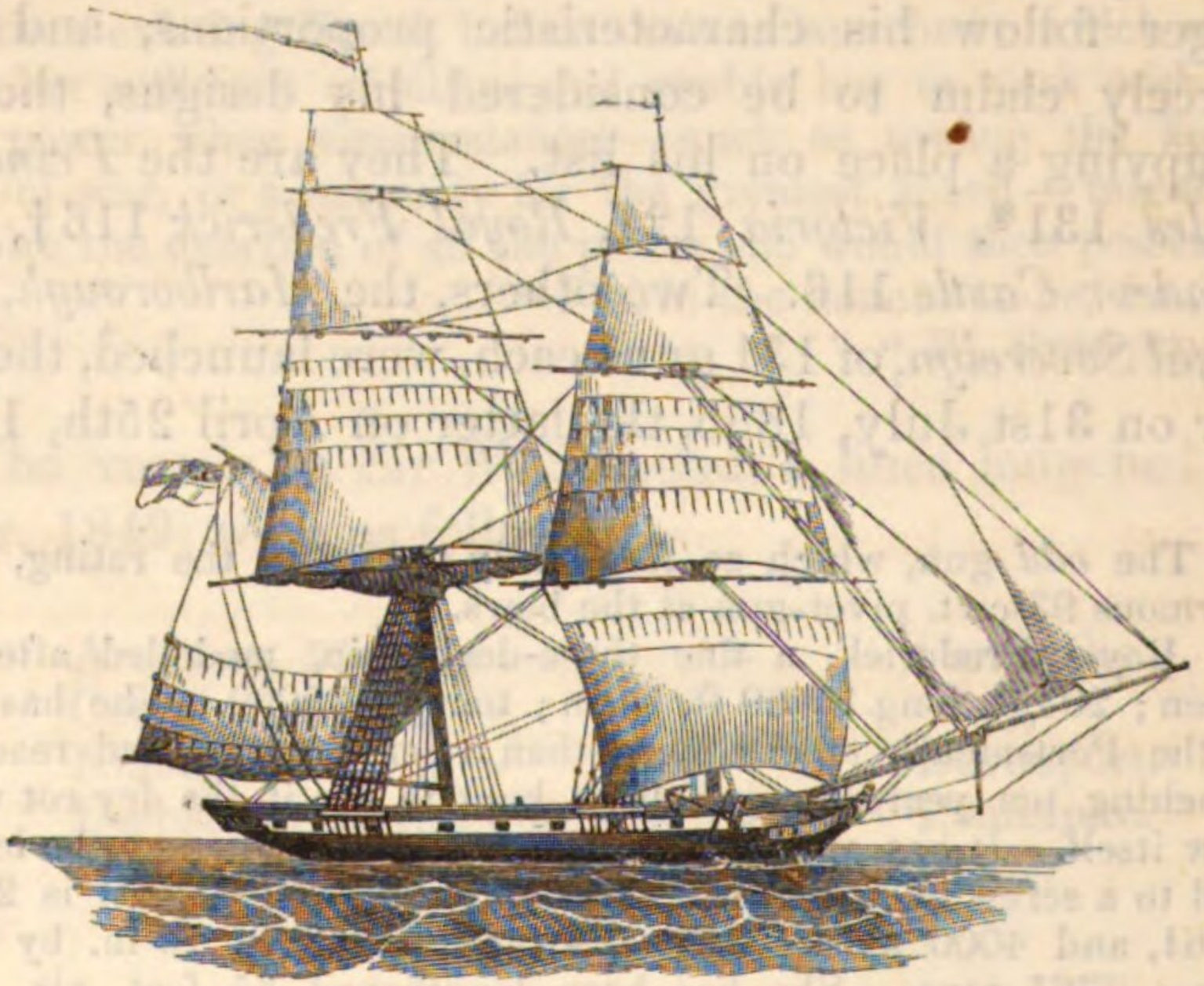
The following line-of-battle ships, also begun by Sir W. Symonds, have been since converted into screws: —*St. Jean d'Acre* 101, *Hannibal* 91, *Princess Royal* 91, *Algiers* 91, *Exmouth* 90, *Majestic* 80 (begun as far back as 1835), *Brunswick* 80. The *Irresistible*, of 80 guns, is yet unfinished.

The frigates, *Liffey* 51, *Chesapeake* 51, *Tribune* 31, are turned into screws. *Sutlej* is a 50-gun sailing frigate.

Malacca 17, is a steam sloop. The *Coquette* 18, sailing vessel, is also unfinished.

The total number built or commenced on Sir William Symonds's lines is about *two hundred and eleven* vessels of all classes.*

* See Alphabetical List at the end of the "Correspondence."



A Ten-gun Brig.

CHAP. XIII.

1850–56.

TRIAL BETWEEN THE ARETHUSA AND PHAETON. — SIR WILLIAM'S ILLNESS AND DEATH. — HIS CHARACTER. — CONCLUDING REMARKS.

THE last entry in Sir William Symonds's Journal is dated 1st January, 1851. "I now add (he says) an account of the final triumph of my principle, gained by the Arethusa, commanded by my son, Captain T. M. C. Symonds, who has been for many months attached to the squadron of Commodore Martin, on the Lisbon station. After having signally beaten the Indefatigable, Leander, and Thetis, she, on the 19th November, outcarried and disabled the Phaeton * in a strong breeze, heading and weathering on her considerably. The latter was so distressed, that the Commodore made the signal to her to bear up and proceed to Portsmouth; where, however, Captain Elliot had the bad taste to hoist a cock at his masthead, although the ship was exceedingly strained, and leaked from stem to stern, so that she had to be docked.

"The Phaeton had 220 tons of ballast in her, while the Arethusa had not a pig. What, then, will the Board say, who have mutilated the Princess Royal, St. Jean d'Acre, Hannibal, &c., by taking away the only grand

* All 50-gun frigates (except Thetis) launched 1848: Indefatigable, 2047 tons, at Devonport, by Mr. W. Edye; Leander, 1987 tons, at Portsmouth, by Mr. Blake; Phaeton, 1942 tons, at Deptford, by Mr. White.

property which constitutes a man-of-war — beam and stability ?"

From Admiral Sir W. Parker, Bart., Commander-in-Chief in the Mediterranean.

"Malta, 10th March, 1851.

"My dear Symonds,

"I cannot resist a few lines of congratulation on the triumph achieved by the Arethusa over the Phaeton, in a strong breeze. The account your son sent me was very satisfactory, and his admirable management of his ship has won him the favour of the Commodore. Phaeton is, I imagine, better calculated for a fine-weather than tempestuous climate.

"It is possible that the heavier armament which the Queen now carries does not improve her speed, but I think the deteriorating effect is inconsiderable. She bears it nobly, and will make a glorious smash of her opponents, if she is ever brought well into action. I would rather see her armed as she is, and sailing as she does, than of lighter force. I am very proud of her; she is a wonderful three-decker, and does not lack admirers even among her determined opponents. She is withal very easy in her motion, and I have not yet found it beyond that manifested by other ships.

"Albion and Ganges are gone to the Ionian islands, and will pay your son a visit at Cefalonia before they return. There is a bad spirit abroad amongst the islanders, though I do not think they will venture on disturbance. . . . .

"Yours sincerely and faithfully,

"W. Parker.

"Sir W. Symonds."

After becoming a widower a second time, by the death of Lady Symonds, who for many years had been a confirmed invalid, Sir William, in the latter end of 1851, married his third wife, Susan Mary, daughter of the Rev. John Briggs *, niece of Admiral Sir Charles Ekins, G.C.B., now the present Lady Symonds. For the benefit of his health, he usually spent his winters abroad—in Italy, 1851; at Malta, 1852; Pau and Italy,

* Fellow of Eton College.

1853: but the summer he passed at his seat in the Isle of Wight, yachting to the very last. He became a Rear-Admiral on the retired list in 1854, the winter of which year he passed in England; but unfortunately an attack of bronchitis fastened on him in November which affected his lungs, and ultimately caused his death. The following October, accompanied by Lady Symonds, he went to Malta, of which island he was very fond.

On the 28th March, 1856, he embarked in the French mail steamer Nil, on his return homeward, in a very feeble state, and died on the 30th, at sea, off Sardinia, in the straits of Bonifacio, suffocated by an effusion of the lungs. He was in his seventy-fourth year. He was buried at Marseilles, in a vault of the Protestant burial-ground, near the railway station.

Rear Admiral Sir William Symonds spoke French and Italian, and understood the theory, as well as the practice, of his profession, and of the sciences upon which it is based. In person he was a strong, symmetrically framed man, about five feet ten inches high, with a very fine head and profile expressive of the greatest intelligence, lively blue eyes, and a face bronzed by exposure to the air and constant yachting. Like most sailors, he was fond of farming and gardening.

Some other traits of his character may be gathered from his own unaffected narrative of his early career — especially his zeal, activity, and strong love of his profession, which made him, by common consent, one of the best seamen of his day. On professional topics he dilated with the ease of one who has the whole subject at his fingers' ends. In his habits, at Somerset House, he displayed uncommon industry and force of will. One secret of his success was that he was a very early riser, and punctual to the minute in his engage-

ments; in consequence of which he was able to despatch a great deal of business, and was always beforehand with his work. The duties of his situation from day to day were, of necessity, extensive and complicated, such as to call for the most assiduous method and persevering attention at every stage.* In his office and at home, those placed with him lived to be old in his service; and by all who enjoyed his intimacy and friendship he was remarkably esteemed.

Sir W. Symonds has a fair claim to be considered a shipbuilding genius, taking genius to be that inborn quality which sets a man to do, as it were *impromptu*, what others have never ventured upon, or thought of. Guided by this light, and well knowing what a good ship ought to be, he took the making of her out of the hands of schemers and theorists, and fixed it upon the solid ground of experiment. He opened a breach in the old system, and let in that salutary flood of improvement which has spread to every dockyard in the kingdom. In this respect his appointment marks a crisis in the history of the Navy — the beginning of a revolution which chased away, for ever, the "coffin" brigs (of which sailors used to say it was "but a step, and overboard"), the "donkey" frigates, the costly *razées*, and other miserable and extravagant failures; and gave the service new and beautiful vessels of every class — vessels, of which it is enough to affirm that they all answered perfectly from the moment they were launched, and maintained their superiority to the last.

A l'œuvre on connaît l'artisan. His ships speak for

* "The Surveyor," says Sir C. Napier (speaking of Sir B. Walker, in 1849), "has six masters, each of whom he is obliged to consult. If about repairing or fitting a ship, he goes to the First Sea Lord; if about building, to Lord J. Hay; if about guns, to Captain Berkeley; if about the packets, to Mr. Cowper; if about the dockyards generally, to the First Lord and the Secretary; if about stores, to Captain Milne." —*Letters on the Navy.*

themselves. This is abundantly shown in the Correspondence, which constitutes a body of independent yet concurring testimony, such as cannot be resisted. Perhaps its chief drawback is, that it is so uniformly favourable in its tenour that even the most indulgent reader may tire of continually hearing Aristides called the Just. Some will even suspect flattery. It is barely possible that an officer, here and there, might have praised Sir W. Symonds because he thought it would be agreeable to the Board, or hoped to get a ship through the Surveyor's influence; but that hundreds of plain-speaking men, writing at different times and from different parts of the world, should combine to do so from interested motives, is simply preposterous.

His principal critics in his own profession, it may be observed, were men of little experience or service afloat. Good seamen always commended his ships; and even the most prejudiced against the new style were willing to acknowledge that they would rather take the worst of his vessels than the best of the old ones. The attacks of his opponents he answered by producing a series of models of every class, all constructed upon the principles with which he set out, until, at length, he extorted their imitation. Having once "broken the line," he made it easy for others to follow, and win further victories; so that we now possess floating bulwarks, which, for size, power, and armament, are justly the pride of the country. By showing us that we could build ships as well as fight them, he contributed to fix the keystone which makes and binds the arch of our naval greatness.

> "Then stands it a triumphal mark! then men
> Observe the strength, the height, the why and when
> It was erected; and, still standing under,
> Meet some new matter to look up and wonder."

About beam and fine bottom, Sir William was in-

flexible; and having, once for all, adjusted his scale of dimensions, he was also averse to increased length; contending that it was breadth which gave stability. At present (with steam as an auxiliary) there is a tendency to make longer and longer ships: increased length, it is said, giving more speed and breadth of sail, without sacrificing stability. But it is a question for seamen to determine whether these advantages are compensated by the inevitable want of compactness and strength in a long ship, the increased friction, and difficulty of working her at sea or in harbour. An increase of several feet in the length adds little to the capacity of a ship, but a foot or two in *breadth* is a prodigious addition to her stability and the convenience of all on board; and if *speed, with every other needful quality, in sailing ships of war*, can be obtained by increased breadth rather than length, it may be found desirable to revert once more to the proportions of Sir W. Symonds.*

There was a class of super-scientific persons who urged (most irrationally) that Sir William had no "correct knowledge of the principles of stability,"—that he did not "make science available" as taught by its great lights: — in short, they endeavoured to persuade themselves and the public that his ships ought not to succeed, in the face of multiplied proofs — that they succeeded to admiration in the opinion of all seamen who tried them; that his first ships, which, had they come from an incompetent hand, should have been his greatest failures, were really among his best works; that they were so safe that nothing could overturn or sink them; that they were swift, manageable, commodious for every purpose on board, and were even cheap, in spite of their

* Stability increases as the cube of the breadth; so that if the breadth is enlarged *one-fourth*, say from 16 ft. to 20 ft., the stability increases as $16^3 : 20^3$, or as 4096 : 8000, or nearly *one-half*.

greater bulk; * and that this intolerable despotism of science had yielded nothing worthy of the name in England, and had actually killed everything like enterprise in the French dockyards.†

His brigs and corvettes, it was said, if pressed with sail, shipped many sprays, and, even, whole green seas; on which account they required to be judiciously handled. But what good instrument does not call for similar careful treatment? That it did not interfere with the comfort of the crew is evident. On this point one of the Committee on Naval Estimates, 1847–48, asks Lord Auckland, "Do not sailors object to Sir W. Symonds's ships as being wet?" The First Lord replies, "I think that, generally, sailors have felt that Sir William's ships afford them more room and *comfort* than any other ships. The objection that is taken is, perhaps, more to their uneasiness than to any other quality. *But I have examined many officers with reference to the* Albion, which was lately paid off, and have had an opportunity of learning the *opinions of some of the petty-officers and*

* Lord Auckland, as First Lord, states before the *Committee on Naval Estimates*, 1847–48, that the "figures before us prove that Sir W. Symonds's ships have not been very expensive in proportion to size." See pp. 366–7, for tabular returns.

† See Trip to Brest. This scientific obstinacy displays itself in, perhaps, its most eccentric form in the examination of one of the members of the old School of Naval Architecture. Sir J. Graham asks, "If Sir F. Collier had said that the Vernon was one of the easiest ships he ever sailed in, would that have any effect on your judgment?" Answer,—"None!"

"You say Sir William Symonds's ships are inefficient as men-of-war. If the opinions of admirals and captains should be that the Queen is the finest first-rate in the service; the Vanguard the most weatherly; that his frigates generally are superior to any frigates of the same class,—would that shake your opinion?" Answer,—"Decidedly not. There was no correct standard to compare them with."

"Your opinion of the relative cost and wear and tear would not be shaken by accounts showing that the wear and tear are not greater in Sir W. Symonds's ships than others?" Answer,—"No."—*Evidence* before the *Committee on Naval Estimates*, as above.

seamen; and I should say that *they all of them like that ship*, and would prefer her to *many ships in the service*, in consequence of her great roominess. She is very roomy, very quick, and very comfortable in many respects, though uneasy in heavy seas." It is perfectly clear that no scientific objections would persuade men out of such an opinion of their ship as this. If she were sometimes a little wet, they would be the first to acknowledge that the sea is wet, and that it was but a consequence of her stability and power of carrying sail, —qualities which can never be dispensed with.

It will be observed that Sir W. Symonds's ships partake of some of the best points of that "thing of life," —a thorough-bred horse: they have the same firmness, elasticity, beauty of form, mettle, and docility. For example, the Commander of the Star says, "I find the lightest air affects her; so much so, that in a calm, great pains are taken to keep her head the right way; and I am persuaded she will forge ahead when vessels of any other construction would be stationary." Then the Commander of the Alert: "I have known the mere flapping of her sails in a calm to send her at least one knot an hour ahead." Other officers speak of the "Sappho's witch-like pranks;" of the Daphne's springing "like a horse to the spur;" of the Pilot, that a "child might steer her." The big ships were the same. "She (the Queen) works like the little Columbine in moderate weather. I mean by that, her power of crawling up to windward, athwart the hawse of other ships, by merely twisting the yards well up, and treating her like a child, with her helm, in point of delicacy." Of the Vanguard: "On first starting, the manner in which *she sprung from her place* in the line was really wonderful; she was, in consequence, some distance ahead before," &c.

Sir William was no schemer, and never lost sight

of anything that might serve the real interests of his profession. His improvements in details — whether suggested by himself or adopted from others—had all a practical tendency, and were all successful. Such were the conversion of the round into the elliptical stern; the getting rid of the tuck rail, and bringing the planking up to the counter-timber, and so strengthening it for bearing the weight of guns; * the substitution of metal, for wooden, riders; his improved boats, &c. The Classification of masts, sails, &c., was a huge piece of labour, and, as he says, a "bitter pill to swallow;" though it has been modified by alterations, made since his time. He took credit also for setting "job and task work aside, and for many wholesome arrangements in the Dockyards." In this and other ways,— especially by his great personal endeavours, while in office, to procure, at his own charge, accurate information on the state of foreign navies, and on foreign timber †, in order that we might keep up our Naval superiority, — he made good his motto, *Patriæ non nobis.*

His constant exertions and great success amply justified the wisdom of his appointment. It is to be hoped, also, that the precedent established in his case, of placing an experienced seaman at the head of the Surveyor's department will continue to be followed. The mathematician calculates, and the shipwright builds; but who is so well qualified for determining what the best design for a ship should be, as the man who, by having sailed in one all his lifetime, has performed hundreds of experiments upon her? Not that this need stand in the way of suggestions from without, or hinder the acceptance of a useful discovery from whatever quarter it comes, in order to provoke a

* First recommended by Mr. Blake, 1815.

† The acorns brought back by him were distributed in the grounds of the Duke of Portland, and other noblemen.

wholesome rivalry. But the science or art of shipbuilding — that is, the art of putting a ship together knowingly — waits for its best improvements from the hands of expert seamen, scientifically trained, possessing a general knowledge of practical details, and able to direct them on scientific principles. In this view, whatever raises the scientific character of Naval officers will promote the science of Naval Architecture.*

Much has been done to this end of late years. Scientific inquiry is encouraged; currents, winds, and storms have been traced and regulated; the depth of the sea has been gauged; the causes of shipwreck are registered; better instruments, charts, signals, compasses, lightning-conductors, are furnished to every ship. The best wood, copper, iron, are used in her construction; the best pines for the masts, and the best hemp and strongest canvas for the ropes and sails; the masts, spars, rigging, are stronger, lighter, and more easily handled; and every precaution is taken that can add to the safety of the ship, and the comfort of her people.† A library and apparatus are put on board—not to make sailors students, philosophers, or mathematicians, but

* As to mere amateurs, — "We are plagued to death," says Mr. Edye, "by the great number of theorists in Naval construction, but there is not one in twenty that knows anything about it."—*Evidence*, 1847–48.

"Britannia's glory first from *ships* arose;
To *shipping* still her power and wealth she owes:
Let each experienced Briton, then, impart
His *naval skill* to perfect *naval art*."

Motto to W. HUTCHINSON'S *Treatise of Naval Architecture*, 4th ed., 1794; a most original though old-fashioned work, by a truly "experienced Briton," and practical seaman. It is full of valuable hints and receipts for every contingency.

† Captain B. HALL'S *Patchwork*. A great improvement was the substitution of iron tanks for casks. With casks, $\frac{8}{17}$ths of the space is lost; with tanks, only $\frac{1}{17}$th. They are made to suit the form of a ship's bottom, and hold not only water but provisions. By filling the empty ones with water the ship can always be kept in trim.

that they may have at hand the means of satisfying rational investigation, and pursuing with advantage those trains of thought which come into every intelligent mind on observing the wonders of God in the deep, and the signs of His providence everywhere. An officer goes to sea at such an early age, that the ship must become his training school and college, where he should have every opportunity of picking up something in the intervals of recess from active employment. While cooped up in a ship at sea, he is debarred, for example, from getting books, or of knowing what books are in existence for his purpose. To have an agency, therefore, at headquarters, to select and forward, to every ship, works of established reputation, is only fair, as it places the seaman, in this respect, on something like a level with people ashore, and in a position to transmit to us, by way of return, the full benefits of the unequalled advantages he enjoys for enlarging the bounds of knowledge and information.

One important step was the revival of the Royal Naval College, in 1838, for the instruction of a limited number of cadets on board the Excellent, and of officers desirous of study. A further step has been taken in the establishment, by the present Board, of Experimental ships for training cadets, at Portsmouth and Plymouth. A better understanding now prevails in the Dockyards; expenses are overhauled, and the system is generally improved. Master Shipwrights, &c., are appointed, after a strict competitive examination at every stage; while free scope is given for the introduction of practical suggestions. To encourage science among the artizans, a central Mathematical School was begun, 1846, at Portsmouth, into which clever youths are drafted from all the Dockyards. The best one of each year, at this school, receives a scholarship, and may look forward to a regular appointment.

For much of this the Navy is indebted to the energy and public spirit of a veteran statesman, Sir James Graham, and to his successors at the Admiralty; and we may conclude this short account of the life and services of Sir William Symonds, by citing, once more, the testimony of so eminent a judge. In a letter to the Duke of Portland, of an early date, he writes :—

"My failure at Woolwich is compensated by the praise which you bestow on the Vanguard. I have the firmest reliance on the skill and judgment of Captain Symonds; and I am willing to take my share of the weight of responsibility which now attaches to his works, if I may be permitted, in any degree, hereafter, *to partake of his future fame:* for I am convinced, that when angry jealousy shall have died away, he will be acknowledged as a *benefactor to the Naval greatness* and power of his country."

CORRESPONDENCE

RESPECTING

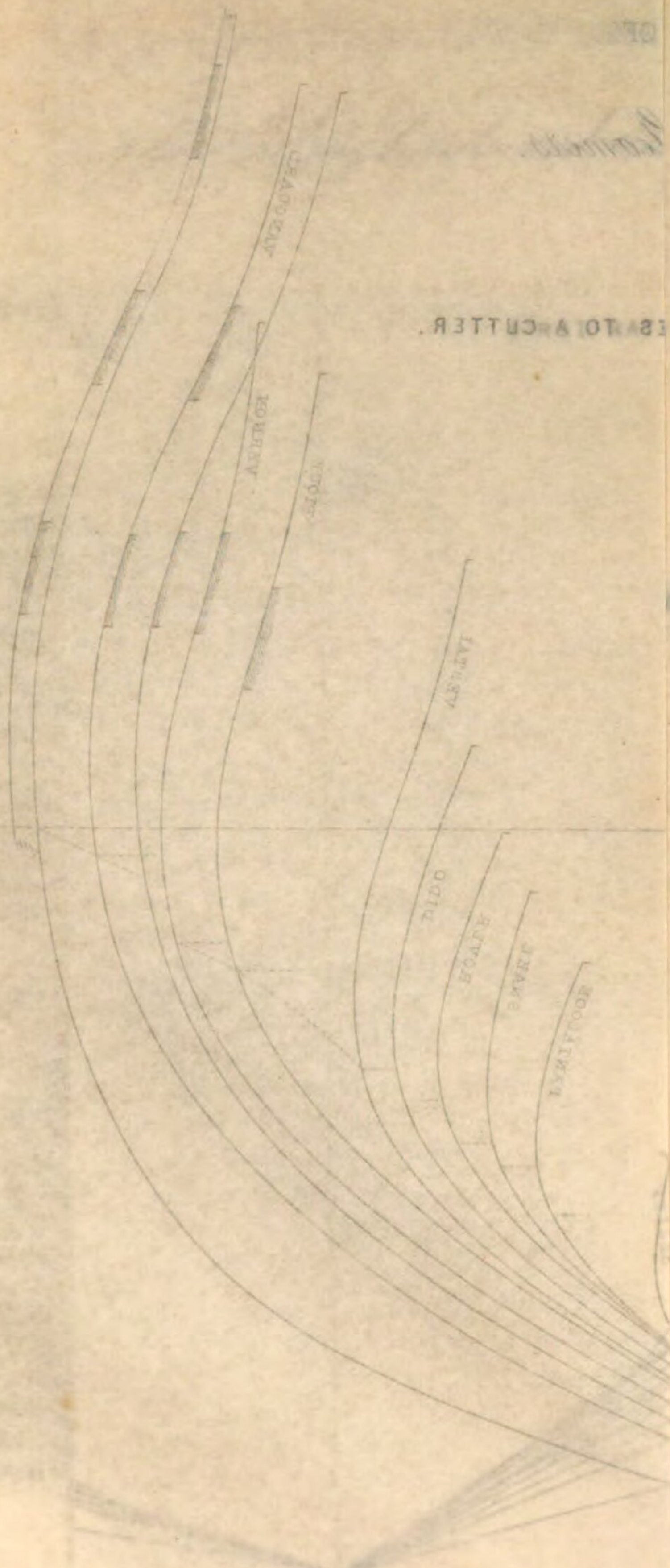
SIR W. SYMONDS'S SHIPS,

CHRONOLOGICALLY ARRANGED

(*i. e.* according to the dates when they were built);

PRECEDED BY A SHORT

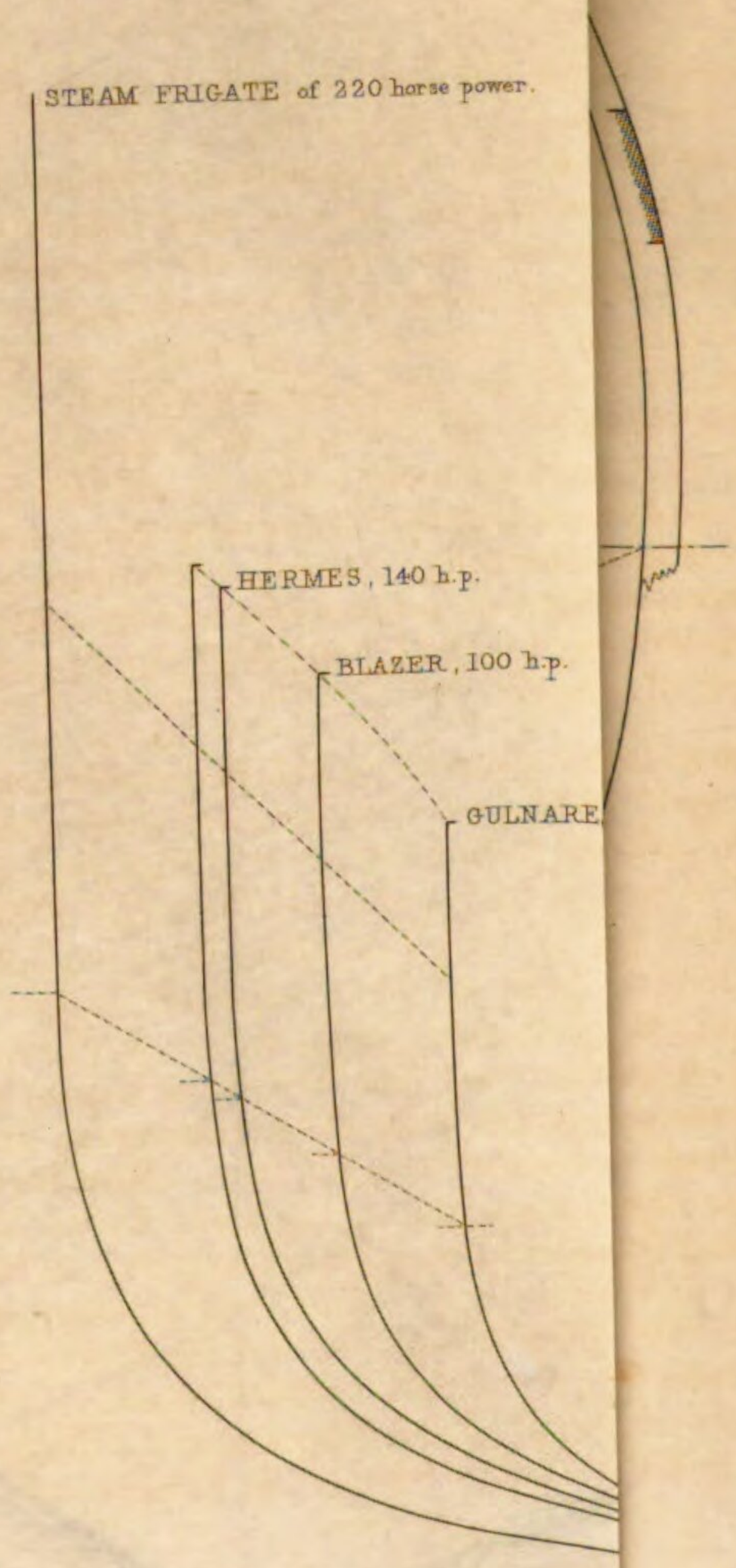
ANALYSIS.


CEADOGBAY
ARETHOR
VICTOR
ARETHUSA
DIDO
HOALFE
EWARE
ROOLFINGA

COMPAR

Sir W. Sy

STEAM VESSEL



ANALYSIS OF CORRESPONDENCE.

It is needless to scare the reader by calling up the ghosts of buried controversies,—but in justice to Sir W. Symonds, it must be remembered that throughout the whole course of his official career, he was exposed to the most bitter attacks from rivals and opponents, who, in and out of Parliament, did their utmost to question his fitness for his work, and to expose and magnify the slightest defects in his beautiful models. To such charges, there was, as we have already stated, a short, plain, and irresistible answer. His ships were successful from the moment they were off the stocks; and in all the points which belong to a good vessel, they beat every competitor. These points are—Velocity, Stability, Stowage, Strength, Easy Evolutions, Economy; and a few concise remarks on each, by way of Analysis, corroborated by the details in the letters which follow, may not be out of place.

1. Velocity.—In speed his vessels invariably beat all others of the same class. This was conspicuously the case with the cruisers on the African station, where they captured some of the fastest slavers—vessels built expressly for speed. The French, who readily admitted that we beat them in the *handling* of our ships, can no longer boast of their superior *sailing*. See the case of the Iris, at Singapore, against the French corvettes, Sabine and Victorieuse, and the Sirène, a frigate which the French pronounced unequalled. The Harlequin, in an hour, sailed twice round a French 10-gun brig. The Rover beat a French corvette eight days, in running from Rio to Valparaiso. The Acorn sailed round and round a French 20-gun brig. The Cleopatra beat a French brig which had challenged her, 1½ mile in 3 miles. The Ranger beat the French L'Alcyone, one of the fastest in their navy. Trials against American ships were equally striking; as between the Pique and the Independence, the Harlequin and the United States, the Daphne and the Pre-

bles, — the last considered the fastest ship in their service; yet the Daphne soon left her out of sight, dead to leeward.

To come to our own Navy, the Vanguard, the first of Sir William's line-of-battle ships, beat the Inconstant and every vessel on the Mediterranean station, new or old, including the Rodney, a fine, easy ship, which it was anticipated would have had the better of her.

But the Captain of the Rodney at once admits the Vanguard's superiority :—

"We have had three trials with Vanguard. . . . . This day the Vanguard went to windward of us in a most extraordinary manner; I would not have believed it possible if I had not seen it: she gained $2\frac{1}{2}$ miles dead to windward in $2\frac{1}{2}$ hours. When the signal was made to the ships to show their inclinations, ours was the same as Vanguard's, viz. $3\frac{1}{2}°$; our lee ports up the whole time. The third trial was with the wind a point abaft the beam, as much sail as we could carry, single-reefed topsails, royals, fore-topmast and top-gallant studding sails; the Rodney was going 11 knots: the Vanguard beat us as much to windward as a mile an hour."

An extract of a letter from the Admiral Superintendent at Malta, shows the opinion of the then Commander-in-chief with respect to this ship:—

"It really is a pleasure to see Vanguard go out of this harbour, she moves so beautifully and so quickly under sail. She weighed, the first time the squadron started from hence, with a slant and light wind, and went out just like a cutter, while all the other ships were obliged to be towed out by Rhadamanthus; * * she gathers way so quickly, that you can do anything with her.

"The Commander-in-chief dined with me the day before he sailed this last time, and I was delighted to hear *him* say, 'I never saw a ship under sail equal to the Vanguard; whilst I have her with me I don't feel the want of a frigate or a brig.' I asked him if, in their cruise, he had seen her under double-reefed topsail, blowing strong; he said, 'No, but I feel satisfied whenever we have a breeze of that kind, she will be going with her lower deck ports up, sparing us a mainsail at least, when the other ships would be almost buried.'

"In time of war, a few such ships as this in a fleet would ensure the bringing on a general action, or oblige the enemy to sacrifice their sternmost ships."

The Queen and Albion were built on the lines of the Vanguard, the first of the Surveyor's line-of-battle ships: both, it will be seen from the reports of their officers, proved themselves to be remarkably fast sailers. On the return of the experimental squadron, 1845, they were placed first: "Nothing (says Sir S. Pym) could be more easy than their motion. They

never appeared to strain anything." The performances of the Vernon and Pique are well known; in every trial they had with other ships, they always proved superior in point of speed.

Another swift class of vessels constructed by the Surveyor, is the 26-gun frigates, such as the Vestal, Carysfort, Iris, Cleopatra, &c. The sailing of the latter two has been already noticed. As to the Carysfort, see her Captain's letter, relating a trial with the squadron, in which she had the advantage. He adds: —

"On my passage from Mahon to Barcelona, I fell in with Castor, 35 miles from this anchorage. Off the wind (that is, rather before the beam), we spared her the mainsail, fore-topmast, and top-gallant studding sails, going from 7 to 8 knots, and had to back the mizen-topsail occasionally to keep abaft the beam. As we approached the land, the wind headed us off shore, and we had to work up to the anchorage. We tacked a cable's length on her lee beam, and in three-quarters of an hour passed on opposite tacks, more than a mile to windward of her. I suppose it is unnecessary for me to say more of the Castor."

The Captain of the Vestal, in transmitting an account of that vessel's extraordinary velocity, says: —

"She walks along to the astonishment of every one, 12·7 knots under royals, wind 2 points abaft the beam; 48½ in 4 hours, under same circumstances; 272 in 24 hours, without a struggle, under royals, wind the same; 444 in 39 hours, wind the same; under top-gallant sails, double-reefed fore and mizen, and single-reefed main topsails and fore-topmast studding sail, wind a-beam, 13·6 and 13 for six successive hours; and yet I am told here the Vestal class can't sail!!!

"On our passage from Rio to Monte Video, the Vestal, Curaçoa, Racer, and Spider started together, and were desired to make the best of their way. The ships arrived as follows: —

Vestal	-	-	11-15 P.M. 30th May.
Racer	-	-	10-15 A.M. 31st May.
Curaçoa	-	-	11-15 A.M. 2nd June.
Spider	-	-	2-30 P.M. 6th June."

From this it appears that the Vestal beat the Racer, in the run, by 11 hours; the Curaçoa, by two days and a half; and the Spider, by more than a week. The Racer is also of the Surveyor's construction; and she and the Vestal are good instances of the possession, by this class of vessels, of that quality which is one of the chief requisites in a vessel of war.

The brigs, corvettes, and other sloops of war constructed by Sir W. Symonds have, all of them, this valuable property, and their officers give them the highest character. The Commander of the Grecian, says: —

"We are now out upon a trial with Calliope, and it affords me the greatest satisfaction to inform you, that I have, in the trials we have made, just weathered upon her 1 mile, dead to windward, per hour; in five hours, 5 miles, dead in the wind's eye. The Wizard, a 10-gun, not standing the least chance with either; and the Royalist, a schooner yacht, being beaten nearly in the like ratio with the Calliope. I find her very weatherly, and, when sailed in trim, quite perfect."

In another letter: —

"After I entered Berkeley Sound, I beat her up through the Narrows with the wind dead on end, and against a lee tide; the channel in one part, for a considerable distance, is only 126 fathoms wide. To be brief, as much as I have seen of the Grecian, I consider her to be the nearest to perfection of any vessel that I have ever served on board."

It will be seen that the Harlequin, one of the Surveyor's earliest triumphs, when in the Mediterranean, having beaten the Childers, then considered the crack brig on the station, a mile and a half per hour dead to windward, and fore-reaching on her all the time, a few days after, fell in with the Orestes, one of the Naval College vessels, and beat her easily; she being under all sail, and the Harlequin heading her under topsails and jib only. She also beat the Castor, in a subsequent trial: —

"It was nearly calm all day, and we were under easy sail until ten o'clock next morning, when a breeze sprung up, and both ships made sail on the starboard tack, we being at that time a little before the Castor's lee beam, and about half a mile from her. By noon, we had crossed under her lee bow, and were upwards of 2 miles in the wind's eye, still on the same tack; and both ships again passed the French brig, which had been making the best of the way to Barcelona, and was hull down to windward when seen in the morning, about seven. During these two days' trial, the Harlequin generally weathered the Castor about 1 mile an hour, fore-reaching at least in proportion. The Captain of the Castor says, the Inconstant never beat him so much on a wind, and it seems to be the general opinion on board the Castor, that the Inconstant would be beaten by Harlequin."

Of the Dido, her Captain reported that during the three or four years the Dido was on the East Indian station, nothing could equal her, and that they had not fallen in with any sail which they had not beaten in a most extraordinary manner.

The Commander of the Sappho, writing from the West Indies, describes the trials of sailing between her and the Champion: —

"On the 30th, we again got under weigh, and after the pilots had left, at half-past seven A.M., made sail, single reefed topsails, topgallant sails, and courses, going from 6 to 6½ knots, wind fresh, with

a head sea, the Sappho half a mile on Champion's lee beam. At 1-30, we tacked; at 2-10, we shortened sail, and telegraphed to the Champion, 'Acknowledge yourself beaten;' the answer was, 'Terribly;' as indeed she was, we being 6 miles dead in the wind's eye of her. The general opinion among my officers was, that the distance was from 7 to 8 miles; but that there might be no exaggeration, I booked it six miles: the wind during that time not having varied half a point."

The reports of the Star and Snake are to the same purpose. The Commander of the Rover says: —

"We have just arrived here from Rio de Janeiro, after an exceedingly boisterous passage round Cape Horn, in the depth of winter; and never was I more delighted, and the whole of my officers likewise, with a vessel. We have tried her in all sorts of weather, from a calm, with a heavy rolling sea, to as hard a gale as I ever witnessed. We ran 13½ knots off Cape Horn, with a jury main-topmast, having previously, in a very hard gale off the Falklands, found our mainmast very badly sprung."

He adds, in conclusion: —

"We have men on board who have been in the Rover since she was first commissioned, and they say that they have never seen such weather, or the ship so much tried; and the more she is so, the better we all like her. In coming up the Coast, off Cape Pillar, under close-reefed topsails, and reefed courses, with a high sea on, we were going 7 and 8 knots. I am sure one of the old 28-gun ships, to one of which I belonged three years, would not have been going 5, and making perhaps with that three points leeway; whereas we were scarcely making half a point. Everybody on board is delighted with her."

2. Stability. — Speed alone in a ship would be of little advantage without stability; and there are two modes of giving it to her,—either by increasing her ballast, or widening the plane of floatation. But for a ship to carry a large quantity of ballast is highly injurious: it tends to immerse the body, quickens her motion when she once begins to roll, and if she strikes the ground, assists in her destruction.* It is a peculiar feature of Sir W. Symonds's system, that while his vessels have immense stability, they require little or no ballast. Some idea of the difference effected in this respect, may be formed from a letter of the Captain of the Vanguard:—

"Looking over an old log-book of mine, I found a record of the old Lancaster, to which I once belonged, which contrasts so remark-

* *Facts* versus *Fiction*, p. xxxvii.

ably with what is the case in this ship, that I am anxious to mention it to you.

"The Lancaster had, at one time, a weight of ballast, 261 tons of iron, and 231 of shingle; more than *one-third* of the measured tonnage of that ship, which was 1430. This ship has now quite as much ballast as is necessary, and that is, not quite one-thirty-seventh part of her measured tonnage. I did not think it would be desirable to reduce the ballast below what she now has, though there could not be the least risk in sailing her without any; and in such a case she would be not only not as crank as many other ships, but not crank at all. Reducing the quantity of ballast was one of the methods I had recourse to, in order to improve the old Windsor Castle's sailing. I reduced her ballast from 180 to 140 tons, and am satisfied that every ton taken out of her made her a better ship.

"With reference to what I have written above about the Lancaster, had she no more ballast than a due proportion to what is in this ship, she would only have had 39 tons; on the other hand, had this ship a due proportion to what was in the Lancaster, she would have had on board 896 tons."

But besides this advantage of dispensing with ballast, there are other advantages gained by increased Stability; such as the power of carrying sail, and carrying and using a heavier armament, the possession of more room to work the guns at quarters, and for the accommodation of the crew. See the official report of Capt. Rous, of the Pique, on her superiority in Stability over the old class of frigates, and her power of standing up, when they would be unable to fight their guns. In another letter, he states that she could "work off a *lee shore*, in the heaviest gale, when old ships could not stand up under their courses." The 10-gun brigs, the "floating coffins" so often alluded to, were miserably deficient in Stability. In the annals of shipwreck, how many thousands of lives might have been saved, had those vessels possessed this valuable power of *working off a lee shore.*

Captain Boxer, who afterwards commanded the Pique, states:

"It is impossible for me to say too much in favour of her Stability; having had many opportunities of trying her, particularly on my return from St. John's, N.B., to Halifax, with a fortnight's provisions on board, and not more than 90 tons of water; and, single-reefed topsails, courses, jib and spanker, it blowing strong, and going 10 knots, with the weather-leeches lifting, she only heeled 7°.

"Beating into Spithead, on the 16th inst., with only three weeks' provisions, and about 80 tons of water, all sails set except royals, she did not heel more than 6°, although blowing fresh. I was also enabled to judge of her stability in comparison with H. M. S. Wellesley, in beating into Plymouth Sound, on the 29th of September last, it blowing strong; with royals and all sail set, her inclination was only 7°; when that ship, with only double-reefed topsails,

jib, and spanker, was heeling 14°. Under every circumstance, her Stability is extraordinary; indeed, I never saw any ship stand up like her, notwithstanding she had no ballast in her."

Rear-Admiral Bouverie, writing officially of the qualifications of the Vanguard, during the time she was under his command, says, respecting her Stability, —

"During the period above mentioned, she was tried in every description of weather; * * * and her comparative Stability, with that of other ships in company with her, was always remarkable; often admitting of the lower-deck ports being kept up and her guns being fired horizontally, when the ports of her consorts were obliged to be barred in. On several occasions of the squadron carrying sail, and the signal being made by Vice-Admiral Sir Charles Paget, our Commander-in-chief, to make known the inclination of each ship, the Vanguard heeled only from 6° to 8°, rarely exceeding the latter number; while other ships have indicated their inclination to be twice as much."

The power of Sir W. Symonds's ships to carry a press of sail from their greater Stability is shown in numerous instances. An officer of the Vernon states, that when running into Salamis with the fleet,—

"A very heavy squall came on, which obliged all the other ships to take in their top-gallant sails, and most of them to lower their topsails and reef them; while the Vernon and Columbine carried single-reefed topsails and top-gallant sails right through it."

Sir S. Pym states of the Queen and Albion: —

"In all the trials they proved themselves incapable of being distressed by a press of sail."

The Master of the Albion says: —

"We had a good trial, by the wind, with as much wind as her masts would bear. Under double-reefed topsails, courses, &c., her inclination never exceeded 4½°, she then going 10 knots, and working within ten and half points of the compass."

The Captain of Dido, says: —

"Her Stability under canvas I found to be such, that although we had not a pig of ballast on board, I have known her to go 6 or 7 knots close-hauled, when in my cabin you would not know, from any inclination, on which tack we were sailing."

Again, in reference to the power enjoyed by the Surveyor's ships of carrying an increased armament, in consequence of their Stability, it will be enough to quote the instances mentioned in "*Facts* versus *Fiction*," written in 1845. What is there stated is now, for the most part, true of all ships of war, but Sir William's vessels first showed how it could be done: —

"The capability of the new class of ships, by the Surveyor, is such as to enable them to carry metal of the largest calibre; — for instance, the Pique carries 32-pounders of 40 cwt. on the quarter deck and forecastle; whilst the same class frigates, Inconstant and Castor, can only carry carronades of 25 cwt. The Surveyor's 80-gun ships carry 32-pounders of 41 cwt. on the quarter deck and forecastle, whilst the old 80-gun ships could only carry 32-pounder carronades of 17 cwt. The Queen 110, is enabled to carry on her quarter deck and forecastle 32-pounder guns of 25 cwt., whilst the Caledonia and the old class ships carry 32-pounder carronades of 17 cwt. The difference between the old class 28-gun frigates, commonly called 'the donkey frigates,' and the Surveyor's new 26-gun frigates, is even greater than any of the foregoing classes; the donkey frigates could only carry 32-pounder carronades of 17 cwt. on their main deck, and 18-pounder carronades on their quarter deck and forecastle; whereas the Surveyor's 26-gun frigates carry long 32-pounders of 40 cwt. on their main deck, and 32-pounders of 25 cwt. on their quarter deck and forecastle." — p. xli.

Yet, with her additional weight, Capt. Rous reported of the Pique, that she could easily carry nine more guns, heavier spars, and 125 more men.

The Captain of the Vanguard says: —

"We have now only 70 tons of ballast on board, one half the quantity she at first started with; still I consider her a very stiff ship. She will, I feel confident, outcarry any in the service, and be able to fight her lower deck guns, when other ships would be obliged to keep their ports down."

An officer of the Vernon states: —

"I never thought shipbuilding could be brought to such perfection: we can fight either side, let it blow as hard as it likes; and as to sailing, we astonish the whole fleet, which we beat in prime style, always leaving the fastest of them 6 or 7 miles astern in six hours. The Caledonia, that we thought sailed very fairly when with the fleet, we run out of sight in seven hours on any point."

The Commander of the Rover writes: —

"The Stability of the ship is something quite extraordinary. About ten days since, under double-reefed topsails and top-gallant sails, close-hauled, going 8 and 8½ knots, I exercised fighting both sides with powder; the lee guns were not, for one moment, a matter of consideration; and it was not until the middle of the exercise that I began to think what other corvette could do this."

A short extract from the official returns of Queries and Replies to the Admiralty, will serve to bring out, in a yet more striking manner, the superior qualities of the Surveyor's vessels, in point of Stability and Armament, when compared with others of the same class: —

	Carysfort. 26 guns. *Sir W. Symonds.*	Dido. 18 guns. *Sir W. Symonds.*	Tyne. 26 guns. *Sir R. Seppings.*	Actæon. 26 guns. *School of Naval Architecture.*	Volage. 26 guns. *School of Naval Architecture.*
What is the inclination of the ship—					
Under stormy staysails or trysails?				12 degrees.	25 to 28 deg.
„ and main-topsail?		5 degrees.	Crank (*i.e.* much disposed to heel over).	12 „	25 to 28 „
„ do. and reefed foresail?		5 „		13 „	23 to 25 „
Under close-reefed topsails and courses?	7 to 9 deg.	5 „		12 „	18 to 20 „
„ treble-reefed topsails and courses?	4 to 5 „	6 „		12 „	14 to 16 „
„ double-reefed topsails and top-gallant sails?	4 to 5 „	5 to 7 deg.		12 „	12 „
Under all sail, except royals?	5 to 6 „	5 to 7 „		11 „	10 to 12 „
„ do. when just able to carry royals?	5 to 6 „	3 degrees.		10 „	10 to 12 „
What is the weight of Armament?	974 cwt.	720 cwt.	482 cwt.	620 cwt.	446 cwt.

Carysfort, Captain H. B. Martin, Jan. to Nov. 1841. *Dido*, Captain H. Davies, Jan. to Aug. 1841. *Tyne*, Captain Lord Ingestre, Feb. 1834 to April 1837. *Actæon*, Captain E. Barnet, Jan. to March 1841. *Volage*, Captain W. Dickson, Jan. 1844 to Jan. 1845.

Thus it appears that the Carysfort and Dido were armed with a weight of metal, half as much or as much again as the others; while their heeling from the vertical was only one-half.

3. Stowage.—There is no dispute that easy and abundant Stowage is a matter of the highest importance in vessels of war. A ship that can stow below provisions and water for many months, keeping her decks clear, is obviously better qualified for a cruise, gives more satisfaction to her crew, and is in many respects more efficient, than one of limited Stowage. That the Surveyor's vessels are superior on this point might be readily inferred from their greater breadth, and their being so constructed as to dispense with the enormous quantity of ballast required by those of the old school.*

In reference to this subject, the Commander of the Rover writes: —

"They cry out about your vessels not Stowing anything. We have room at present, over our tanks, to stow another tier, by which we could carry 80 tons, instead of 45, her present quantity; and we can, with the greatest ease, take on board nine months' provisions of every sort, except bread in the bread-room, and we can stow six months' of that in it, and put the remaining quantity in the after-hold and spirit-room, in casks. Such is her non-stowage!!!"

Take, again, this extract of a letter from an officer of the Vernon: —

"Now for our Stowage, which is a very great qualification in a man-of-war: we stow six months' provisions under hatches easily, nine months' rum in spirit-room, eight hundred bags of bread in the bread-room, and two hundred and fifty-three tons of water. Can the opponents of the Surveyor name any other frigate in the service that can do this? No, they cannot; and yet, with all these well-known facts, they have the audacity to assert, week after week, that we are a total failure, without being able to bring forward a single fact to

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* "Captain Symonds appears to be led by an unerring grand principle, which is, that by repeated experiments, he will eventually produce a model which will require no iron ballast; that is to say, that the provisions and stores, when complete, shall be sufficient for her ballast, and she shall only require *filling up* as she lightens, to keep her sufficiently down in the water. If Captain Symonds succeeds in this grand desideratum, we think he will then, with the other qualities which he has already realised, have brought the building of men-of-war to the highest state of perfection which we may reasonably anticipate."—Captain Marryat, in the *Metropolitan Magazine* for 1832.

substantiate it. It may be that Captain Symonds's ships cost more in building than other ships of the same class, because they are so much larger; but do not the comfort and health of the officers and ship's company counterbalance this? For it stands to reason, the *less people are crowded in a ship, the more comfortable and healthy* they must be."

As to the "cost" here mentioned, it will appear presently that increased Stowage, as well as other advantages, was gained, with a positive saving of public money.

Captain Boxer writes of the Pique: —

"Stowage.—One hundred and fifty tons of water and seven months' provisions under hatches, with six and a half months' bread in bags in the bread-rooms: and if her magazine were placed in the same situation as other ships, which, in my opinion, it ought to be, thereby allowing the weight to be more concentrated, she would with ease stow at least 180 tons of water.

"Berthing.—Her great beam makes her very superior to other ships: 400 troops hanging up their hammocks with ease, besides the ship's company; and 300 of these troops, messing with comfort on the main, and 130 on the lower deck, with the ship's company. She conveyed from Cork 323 troops, 50 women and children: from Halifax to St. John's, N.B., the head-quarter division of the 65th regiment, amounting to 400 troops, and 77 women and children, with a quantity of artillery stores; and from Halifax to Quebec, the whole of the troops and baggage that went out in the Hercules, with the whole of the heavy baggage of the 34th regiment, besides a great quantity of the officers' baggage, who had left that place in the winter, with their regiments from Quebec, and 500,000 dollars; at the same time, the ship remaining, with all her equipments, in a *perfect state as a man-of-war.*"

What frigate of the old 36-gun class could have given one-half the accommodation in Stowage and Berthing, and still leave the ship in a perfect state of equipment? That the line-of-battle ships were not inferior in these qualities is shown by the testimony of Admiral Bouverie, in his official Report of Vanguard: —

"Her capacity for stowing water and provisions, and in berthing her men?—She stows upwards of 400 tons of water, and could carry, with perfect ease, five months' bread and six months' provisions of all other species, for her complement of 620 men, and an abundant supply of stores for her own use. She could take even more than these quantities, but I confine myself to facts, which would not affect the qualities necessary for a man-of-war to possess. Her crew are berthed with the greatest convenience and comfort. I must here mention, that I am perfectly satisfied that she would carry well a tier of 68-pounders on her lower deck."

Captain Keppel thus speaks of the Dido corvette: —

"Owing to her space and comfort below, the physician of the fleet in China, Doctor Wilson, assured me that she was (judging from the returns of sick) the most healthy ship out there; although I think that our men, during the day, were as much exposed to the sun and weather in boats as any ship on the station."

To this testimony he adds, — "I must congratulate you on having produced a class of vessels combining the greatest possible comfort with all the capabilities of a perfect man-of-war." — See this officer's letter, at length, dated Feb. 19, 1845, p. 334.

Further, it may be noticed respecting Sir William's brigs, that on the coast of Africa they carried water enough to give each man "*ten to twelve pints a day, instead of five*, as in vessels of the old construction;" * a fact which seamen who have been stationed in the tropics can best appreciate.

Thus it appears that the Surveyor's ships could Stow a quantity of provisions, water and stores (without in the slightest degree encumbering their decks), equal not only to ordinary demands, but to the extraordinary exigencies of the service. The crew have more room to work their guns, and to carry out the necessary duties of the ship; they are berthed more comfortably; and their health, as well as their convenience, is more amply provided for. It is needless to insist that the man who thus contributed to secure a healthy and cheerful crew to man Her Majesty's ships, and to prevent the recurrence of such discontents as broke out into open mutiny at Spithead and the Nore, is entitled to the gratitude of his country.

4. Strength. — That the Surveyor's ships were stronger than others of a former construction, will be evident from the simple fact, that their form was such, that the timber for building them could be used in its natural growth. The midship section and the beams form a triangle; and being perfectly trussed, one part supports the others. This gave them a great advantage over vessels of a different shape, which required so much crooked timber for their futtocks and floors, generally called knee timber, that, independent of other considerations, had it not been for the African oak delivered into the Dockyards, it would have been impossible to provide their frames. Besides, the bilge, or round, of such ships, in the event of their taking

* Mr. J. E. Petley, Master-Commander of the Black Eagle, formerly in the Leveret, one of Sir H. Peake's 10-gun brigs, broken up 1843.

the ground, receives the shock; and being of a form not natural to the growth of timber, is less calculated to resist the concussion.

It was her form which saved the Pique, when she had the mishap to get ashore in the St. Lawrence *, and enabled her to cross the Atlantic in the face of a continual gale.

Captain Rous says of her: —

"Your beautiful ship has had the hardest thumping that ever was stood by wood and iron; a strong current swept us in on shore, off Labrador, in the Belle Isle Passage, and we laid on the rocks beating our souls out for 10½ mortal hours. * * * Luckily her masts stood, and everything else. * * * I know of no other ship that would have stood such a wrangle."

When the Cleopatra met with a similar misfortune, an officer says: —

"Her going on shore has given me great pain; however, it is a consolation to think it will prove to the world how well your ships take the ground. To the best of my judgment, the Cleopatra never struck on any part but her keel; at the time heeling about three streaks, and striking very heavy, for about twelve hours out of the six-and-twenty which she was on shore; still she appears to have received little or no damage.

"It is my opinion, that had she been a vessel of the old construction, she must have struck on her bilge, which part being considerably weaker than her keel, would have made her getting off a doubtful case. Allowing that she was not bilged, it would still require a greater power to heave a vessel off, grounding on her bilge and keel at the same time."

In the heaviest gales the Surveyor's ships neither strained nor worked, but continued as firm and as solid as a block of wood. The Commander of the Star gives a remarkable illustration of this fact: —

"To speak now of her Strength. When I joined, the height of her 'tween decks was pointed out to me as an objection, accompanied with this observation, 'That in heavy weather she would work.' This, however, has not been the case; on the contrary, she continues as solid as a block of wood. In the late gales, having my spare and stream-anchors stowed amidships, I thought to strengthen her two midship-beams by shoring them up, for which purpose I converted a sprung topmast studding-sail boom, and then drove a stanchion under each. There they remained, uncleated, during the whole of the bad weather, without moving a hair's breadth, which must have shown, had it been otherwise, by the fresh paint-work. My attention was called

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* See Chap. V.

to this fact by one of the passengers, a considerable shipowner, Mr. Tobin, of Halifax."

The reply to the official inquiries respecting the Surveyor's ships is "well built," "well built and strong," "very strong," "very strong built," and such like. Such are the advantages of his mode of framing, that it was adopted by the best builders in the Merchant service, with the full conviction of its superiority, in strength and economy, over the mode formerly practised. Under this head, it is worth remarking that, out of the 200 and more ships built by Sir W. Symonds,—some of which are now nearly thirty years old,—the great majority are still employed; only five have suffered shipwreck by being run ashore, &c.; and not one has *foundered*—that dreadful word which puzzled poor Robinson Crusoe so much, and which tens of thousands have learnt the meaning of by fatal experience.

5. Easy Evolutions.—It is nearly as essential for a vessel to be quick in her Evolutions, as for her to possess speed; for otherwise, all the advantages she would gain by speed might be lost by tardiness in wearing or staying. Every nautical man has been, in the course of his experience, placed by circumstances in such a position that the safety of the ship and the lives of the crew have depended on her certainty in staying.*

To be easy, sure, and quick in her Evolutions, is therefore a most important feature in an efficient ship. On this point the replies to the queries in the official reports, concerning the sailing qualities of the Surveyor's ships,—as "How does she stay?" "How does she wear?" were invariably of the most favourable character—"Very well," "Quick," "Very quick," "Like a cutter," &c. Vice-Admiral Sir Edward Owen, in his report on the Queen, says of this large ship:—

"Whilst standing off and on, this morning, off Gibraltar, she was twice put about under single-reefed topsails, jib and spanker (without courses), and was as *handy as a pleasure-boat.*"

The Captain of the Vanguard writes:—

"I astonished the officers in wearing the ship; and although the Russell is a very handy ship, we were always round before her, either in tacking or wearing: as for the Asia and Caledonia, I could have given them a couple of broadsides in either manœuvre before they could get round."

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* The reader will remember a well-told instance in Marryat's *Peter Simple*, founded on the manner in which the late Admiral Hayes saved his ship, the Magnificent.

The Master of the Albion states, that among the other qualifications of that ship, —

"She works and steers *like a boat;* that is, quicker and better than any ship I ever sailed in."

One of the Lieutenants of the Siren says of her:—

"The Siren is without exception the finest brig I ever beheld; she carries ten weeks' water, and four months' provisions for 125 men under hatches, *works beautifully*, always within ten points, and her common rate of sailing is 8½ knots on a bowline. She has never strained a rope-yarn, and the running gear we now use is the same we rove in England eighteen months ago. The accommodation is splendid for a brig; the quarters are most roomy, and she carries her 25 cwt. guns without complaining in the least."

The Commander of the Acorn writes:—

"I experienced the heaviest gale I have ever been in, in a short time since, in Mozambique—I may say a perfect hurricane. We were only fifteen miles from the shore when it commenced. Our sails were blown to pieces. I never met a finer sea-boat, and her working was quite perfect. She will *stay as fast as the men can go from brace to brace.*"

6. Economy. — This is the last requisite demanded in the construction of our ships of war. When it is considered how much superior in point of speed, stability, armament, Sir W. Symonds's ships are to those of the old build, it was natural to expect that such evident advantages had been purchased by a greater expenditure; and since increased efficiency, and not a mere saving of *£ s. d.*, is the truest economy in shipbuilding, the country was prepared to accept a higher rate of cost as a proper and really economical proceeding. It occasioned, therefore, a most agreeable surprise to the public, after being accustomed to hear and read the charges so frequently made against the "unexampled extravagance" of the Surveyor's mode of construction, to find by a Parliamentary return *, that these large and splendid ships, of such superior design, were many of them absolutely cheaper than the old, smaller, and inferior vessels; and that in no instance did the cost of his improved vessels, on a comparison of rate and tonnage, bear anything like an adequate proportion to their increased size and efficiency. Take the cost of the respective rates, beginning with the first class line-of-battle ships.†

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* Ordered, on a motion by Captain Lord Ingestre.

† Line-of-battle ships are ships of two or three gun decks. By dividing the cost by the tonnage we get 27*l.* a ton for the Queen; 33*l.*, 34*l.*, 37*l.*, for the others; and so for lower rates.

FIRST CLASS — LINE-OF-BATTLE SHIPS.

By Sir W. Symonds.				By other Constructors.			
	Guns.	Tons.	£		Guns.	Tons.	£
Queen	110	3083	83,000	Royal William	120	2694	89,640
				St. George . .	120	2694	90,817
				Trafalgar . .	120	2694	99,227
				(All built by Sir W. Rule.)			

Here we find that the Queen, carrying heavier guns than the old first-rates, and nearly 400 tons larger, cost considerably less than the Royal William, &c., they being 22 to 36 per cent. dearer ships to the country. But more than this, the Queen has her topsides and other fastenings, of copper and mixed metal bolts, while the old-class ships have iron. This makes a difference of about £5,000, which, in fairness, must be deducted from the apparent cost of the Queen before making a comparison; a remark which applies to all the Surveyor's rates.

SECOND CLASS — LINE-OF-BATTLE SHIPS.

By Sir W. Symonds.				By other Constructors.			
	Guns.	Tons.	£		Guns.	Tons.	£
Albion . . .	90	3083	81,349	Rodney . . .	92	2598	76,541
Deduct for copper and mixed metal bolts			5,200	Nile	92	2598	80,074
			76,149	(By Sir R. Seppings.)			

The Albion, for experiment, was fastened wholly with copper and mixed metal bolts, instead of wooden trenails and iron bolts, for which about £5,200 must be deducted as above for comparison. Hence, it is found that though nearly 500 tons larger, she cost less than the Rodney or the Nile.

THIRD CLASS — LINE-OF-BATTLE SHIPS.

By Sir. W. Symonds.				By other Constructors.			
	Guns.	Tons.	£		Guns.	Tons.	£
Vanguard . . .	80	2589	62,115	Clarence . . .	84	2279	72,387
Superb	80	2589	65,535	Thunderer . . .	84	2279	76,160
				(Copies of old Canopus.)			

The Surveyor's vessels of this class, though upwards of 300 tons heavier, and furnished with bolts, as before mentioned, cost less by £10,000 than the smaller ships of the old school.

FOURTH CLASS — LINE-OF-BATTLE SHIPS.

By Sir W. Symonds.				By other Constructors.			
	Guns.	Tons.	£		Guns.	Tons.	£
Cumberland . .	70	2195	45,025	Bellerophon . .	78	2056	78,946
				Hindostan . . .	78	2035	64,738
				(Bellerophon, by Sir H. Peake; Hindostan, as Repulse, enlarged.)			

The difference here is conspicuously striking.

FIFTH CLASS — FRIGATES.

There are no official returns for the comparative cost of this class. But there is a statement of the cost of converting a line-of-battle into a frigate, by razéeing or cutting her down, from which it appears that it cost actually much less to build the Vernon, than to cut down the Dublin to a frigate, leaving out the first cost of building up the latter to a seventy-four.*

By Sir W. Symonds.				Razéeing.			
	Guns.	Tons.	£		Guns.	Tons.	£
Vernon	50	2082	48,487	Dublin	50	1772	52,839

SIXTH CLASS — FRIGATES.

By Sir W. Symonds.				By other Constructors.			
	Guns	Tons.	£		Guns.	Tons.	£
Pique	36	1622	33,001	Castor	36	1293	29,578
Cambrian . . .	36	1622	33,289	Inconstant . .	36	1422	30,922
				(Castor, by Sir R. Seppings; Inconstant, by Admiral Hayes.)			

* Another version of Charles Lamb's famous Chinese story of burning down the house to roast the pig.

Here it will be perceived, that the Surveyor's 36-gun frigates, after deducting the extra charge for superior fastenings, cost no more than the Castor and Inconstant, which are 300 tons and 200 tons less than his ships, and unable to carry so heavy an armament.

SEVENTH CLASS — FRIGATES.

Those who served in the old "donkey" 28-gun frigates, were perfectly aware of the total inefficiency of these vessels, either to fight or run. The Surveyor's 26-gun frigates, were able to do both, and are described by their officers as perfect men-of-war. Compare, now, the cost of building perfect, and inefficient, men-of-war.

By Sir W. Symonds.				By other Constructors.			
	Guns.	Tons.	£		Guns.	Tons.	£
Vestal	26	913	21,383	Tyne	26	600	19,664
Iris	26	906	18,592	Tweed	26	500	15,942
Spartan. . . .	26	918	22,627	Volage . . .	26	516	18,940
				(Tyne, by Sir R. Seppings ; Volage, by School of Naval Architecture.)			

Deducting the price of fastenings, it will be seen, that the Surveyor's frigates of this class cost about the same sum as those of other constructors, but in tonnage they are half as big again, and their armament is much heavier.

EIGHTH CLASS — CORVETTES.

By Sir W. Symonds.				By other Constructors.			
	Guns.	Tons.	£		Guns.	Tons.	£
Dido	18	734	14,969	Champion . . .	18	456	12,563
Daphne	18	726	14,445	Comus	18	462	12,967
				(Champion, by Admiral Hayes; Comus, by Dr. Inman.)			

Here again, the cost is about equal (with the proper deduction); but the tonnage and armament of the Surveyor's ships are greatly superior, to say nothing of their high qualities as men-of-war.

NINTH CLASS — BRIGS.

By the Surveyor.				By other Constructors.			
	Guns.	Tons.	£		Guns.	Tons.	£
Siren	16	549	10,889	Cruizer	16	384	11,086
Grecian	16	484	10,356	Childers	16	385	9,757
Bittern	16	484	9,503	Daring	12	426	9,231
Wanderer	16	428	10,234	Mutine	12	428	9,501
Racer	16	431	8,457	Osprey	12	425	8,794
Flying Fish	12	445	9,723	Espiègle	12	443	9,723
				(Cruizer and Childers, by Sir W. Rule. For the others see p. 323.			

The Siren, by the Surveyor, cost less than the Cruizer, which was only two-thirds the size, and a much inferior vessel, as shown in the experimental trial of 1844.* Sir William's other brigs are superior in armament and tonnage.

TENTH CLASS — BRIGS.

By the Surveyor.				By other Constructors.			
	Guns.	Tons.	£		Guns.	Tons.	£
Rapid	8	319	6,797	Algerine	10	231	7,062
Bonetta	5	319	6,510	Saracen	10	228	8,106

Here we see that the efficient, safe, and serviceable brigs of the Surveyor, with one-third greater tonnage, cost considerably less than the former unsafe, ill-built, and inefficient 10-gun brigs or "floating coffins."

Finally, it may be remarked, in answer to the uncandid and contradictory attacks on the Surveyor, that the wonder would be, as was well said by a Naval Journal of the day, how his ships "ever traverse the sea at all; how they ever get out or ever get home; how they are able to carry their sail, or their guns, or their men, or their stores, or anything that ought to be carried; how they continue to tack or wear; how they manage not to go to the bottom at once. It is unaccountable that they do not founder with all hands, in the very first squall. Yet somehow, they hold their own; they weather gales, and make rapid passages, and cut a respectable figure among the best."

* She was sold out of the Navy in 1849. The Mutine was wrecked about the same time.

The same authority* adds:—

"We may content ourselves at present by saying what Sir William Symonds is *not* answerable for,—what he has *not* done. He has not originated or continued any evidently useless or disgraceful class of ships or vessels of war; he has built no North Stars, no Belvideras; he has sent out no ships which cannot fight their guns or have nothing but pop-guns to fight, which cannot run away, and which cannot stand up under sail. He has sent no vessels to sea in which any one taller than Tom Thumb must bend double, and in which there are no quarters to fight the guns. He has built no brigs of 230 tons whose hammock nettings stand 5 feet 10 inches above the deck,—on which deck you may be comfortably drowned without even the outwearied craft sinking bodily We owe the Surveyor no coffins, in the miserable 'tween decks of which our gallant fellows were sent to stew in the Tropics,—in order, we presume, that a lively experience of some of the horrors of slave-vessels might animate them to their capture; or which, as packets, have foundered in the broad Atlantic, and left no record of how they perished. He has built no 18-gun sloops which, with the long-leggedness of spiders, had not even the destructive power of these creatures, and which were formidable only to those cooped up below their stifling decks or watching wearily the approach of a breeze to their frightfully overgrown masts."

* *Hampshire Advertiser*, 25th Jan. 1845.

H.M.B. COLUMBINE, 12 *guns*.

Built at Portsmouth, 1826. Tonnage 492.

No. 1. *From Lieutenant E. Wilson, R.N.*

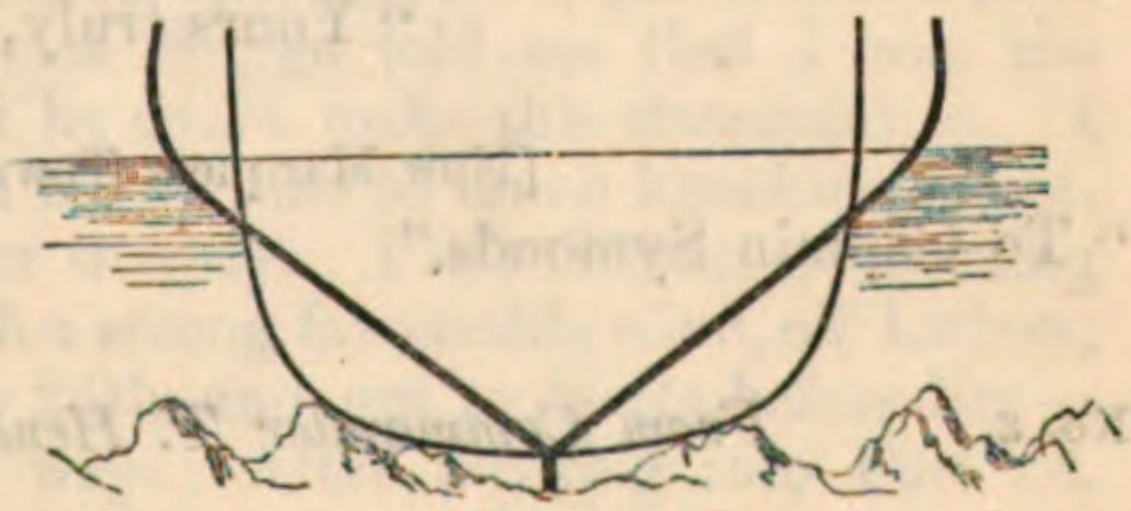
"H.M.S. Columbine, Halifax, Nov. 7, 1828.

"My dear Sir,

"You must know that in the latter end of August, we sailed from Bermuda, with H.M.S. Tribune and Arachne *, sent expressly to try with us.

"Tribune made signal to steer a course with wind a-beam, single-reefed topsails and topgallant-sails. The trial lasted 2 hours, in which time Columbine beat Arachne, 1½ mile; Tribune, ½ mile. We then hauled our wind under the same sail, and in two hours had weathered Tribune 2½ miles, and Arachne the same. Captain Wilson was pleased to say, he had never seen two ships made such an example of before. Tribune parted company, and we continued to beat the Arachne in the same way during five trials.

"We now proceeded to the Magdalen Island, Gulf of St. Lawrence, often encountering several heavy gales of wind, in which the ship behaved beautifully, admirably well. In rounding the point, giving it what we thought was a good berth, 2½ miles, going 9 knots, wind a-beam, the ship struck on a reef of rocks and remained immoveable. The shock was such that I thought all hopes of saving her hopeless. The well was sounded, when, strange to say, she made no water. We ran the guns forward, and forced her over the reef. You may imagine our joy. What in my opinion saved the ship, was the peculiar wedge-shaped form, which would easily glide clear of the sharp points of the rocks, having the keel the strongest part of the ship, to sustain the shock; whereas a full-bottom ship would receive it in her weakest part. This can be plainly perceived by the following description.



"On proceeding to St. John's, N.B., we were placed on the slip, when we found the main keel forward gone, and 40 feet false keel, which we had to replace.

"Believe me, yours faithfully, E. Wilson."

[Now Commander E. Wilson, of 1845.]

"Captain Symonds."

* An 18-gun ship of the old class.

No. 2. *From Commander J. Townshend, R. N.*

"H.M.S. Columbine, St. John's, Nov. 12, 1828.

"DEAR SYMONDS,

"I can no longer resist the desire I have of telling you my sentiments of your little ship. I should have written you a few lines before this, but I was anxious to be able to give you a *satisfactory* account of her numerous good qualities. If my report would have any weight at the Admiralty, you might expect to have an order for building away without loss of time; but if *called upon*, I can say nothing but what is in her favour. This last cruise we have experienced a good deal of blowing weather, in which I can safely affirm it is impossible any vessel could have behaved better; being very dry, exceedingly stiff under her canvas, and, in short, making fine weather of it. As to her sailing, I think *no* ship will come near her on, and few beat her off. We have had 10½ out of her within 5 points and 12 free; several times as much as 9·4 and 10 on a wind, and 11·2 with royals I must tell you we had the bad luck to get on shore at the Magdalen Islands, and we came round here to have her repaired, as her keel is gone. We were going 8 knots when we struck on a reef. Her sharp bottom was of service, I am inclined to think, on this occasion, and we got off very well.

"I can never, at least I will never, accept another ship after this; I don't think I could breathe in a 10-gun brig, and I know I should be discontented with any other they could offer. I need not say, after this, what my opinion of this ship is. I think, for her force, she is perfection; and they ought never to build another *smaller* vessel. I shall be truly happy to hear that your frigate is in a state of forwardness; and that she may answer both yours, ours, and every one's expectations is the sincere wish of

"Yours truly,

"J. TOWNSHEND."

[Now Marquess Townshend, and a Rear-Admiral.]

"To Captain Symonds."

No. 3. *From Commander T. Henderson, R. N.*

"Malta, Oct. 1834.

"I did not write to you before, as I was anxious to give you some idea of Columbine, after the alterations made on her. We sailed from the Downs with the Thalia*, Admiral

* Thalia, 42, built 1830; a copy of the old Leda.

Campbell's flag-ship, and in a beat of twenty-five miles, the first day, weathered nine miles on her. The second day we weighed together at 5 A.M., and at 4 P.M. she was not in sight from the mast head. When last seen she was dead to leeward, both vessels taking in, and setting topgallant-sails, occasionally, over double-reefed topsails, and carrying their utmost. I ran with the Orestes*, on the coast of Portugal, where I fell in with her; in light winds, left her 1 mile an hour, and in strong breezes, rather headed on her without studding-sails or courses.

I chased a beautiful Austrian corvette of 20 guns off Minorca, and in three hours, after passing within hail, she was hull down to leeward. Having had three good trials of different vessels, and in different circumstances, and those vessels being all powerful ones, as well as having had extraordinary advantage over the fast-looking Americans, — two brigs and a clipper schooner, — I venture to express a good opinion of her qualities. She steers and works like a boat. We had to beat almost the whole of a circuitous route to Malta. I was sent to St. Sebastian from Plymouth. Lord Auckland, and the other Lords who accompanied him to Plymouth, went out of the Sound with me, and appeared much pleased with the vessel, although it was a bad time for them to judge of her. I went out of the basin on Wednesday evening, bent sails on Thursday and removed from the hulk; went to the Nore on Friday; was paid advance on Saturday, and sailed at daylight on Sunday; and beat round to Plymouth in half a gale of wind; so that I was not in the best state to be visited by the Admiralty; but they were very condescending, and seemed pleased.

"Notwithstanding I have beat almost the whole of my way round the Bay of Biscay and to Malta, and have been employed provisioning some of the cruisers on the coast of Spain, and watering two steamers, I am now joining the fleet here without a defect or demand, excepting for the provisions I gave away. Admiral Sir Thomas Briggs told me that I was the only vessel from England he could make this statement of. I am well manned, and from having had so much knocking about, the men begin to work her smartly. I left Orestes proceeding for Malta, on the 20th, with a strong favourable wind, off Lisbon; sailed from thence on the 24th, and got to Malta before her — beating nearly the whole way. After working into Fort St. Angelo, I was compelled to go round to Marsamuscetto quarantine harbour, in which, although it is very narrow, she worked under strong winds, and picked up a buoy without

* Orestes, 14, built 1824, by Dr. Inman.

dropping an anchor. She is, without exception, the most perfect beauty of a brig you ever beheld, and at a distance she is generally taken for a 10-gun sloop, she looks so small and well proportioned. I am getting on with my gunnery, and I hope to prove what I so long ago asserted: I am afforded an excellent opportunity of doing so here.

Vourla, 27th Oct.—I this evening joined Sir J. Rowley. I left Malta thirty hours after the Portland (both of us for Napoli), and got there the same night. She again sailed from Napoli four hours before me, for Vourla, and will not get in before to-morrow. To the wind she had no chance with us, and yesterday we left her 7 or 8 miles, during a breeze, aft, and a little on the quarter occasionally, which carried us from 9 to 11 knots, with royals, the whole of the day. I would not have said so much about Columbine, but I know you will be pleased to have a fair account of a matter you have so kindly interested yourself in."

"Yours, &c.,

"T. HENDERSON."

[Now Captain T. Henderson, of 1840.]

"Captain J. Wemyss,
Wemyss Castle." *

No. 4. *From the same.*

"H.M.S. Columbine, Malta, 6th November, 1835.

"MY DEAR SIR,

"I am sorry to learn from more than one member of the House of Commons, that a report was laid on their table, stating that Columbine fell very fast to leeward during a trial of sailing with Vernon and Portland. Such a statement does her and myself the greatest injustice, as the very contrary was the fact. When our signal was made to accompany those ships, they had been sailing some time, and were never more than 2 miles dead on our weather. The Island of St.

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* "Wemyss Castle, Jan. 25, 1835.

"SIR JAMES,

"I am sure you will have an equal satisfaction with myself in reading the foregoing. Captain Henderson is one of the best seamen I ever saw. Both he and Sir W. Parker's late Master (his brother) owe everything to their own good doings. My mind is now easy, from having called him to yours and Sir Thomas Hardy's notice.

"Yours,

"JAMES WEMYSS."

"Sir J. Graham, Bart."

Georgio de Arbro was to be rounded, and we were to join the squadron at Salamis; and notwithstanding they were a third nearer to it, we fetched it first, and, had our foreyard not given way in stays, would have gone round it flanking, twenty minutes before Vernon made her appearance. Portland we could spare courses to the wind!

"How such a report could have been made I am at a loss to know. After twelve months' trial in every way, no vessel has even made a show of keeping way with us for an hour together, excepting once, and *once only*. This was Childers, beating between Cerigo and the main, when the winds were unsteady, and when the most experienced seaman could not act from judgment; but whenever the open sea was got to, she fell rapidly to leeward; till some sympathising spirit on board the flagship made our recall just as a severe example was being made of her. The very first time we got hold of her afterwards in open sea, and in presence of the squadron, we did as we have always done, beat her, and all the others, Sapphire, Endymion, Orestes, and Favourite *, at the rate of 1 mile and 1½ miles an hour to the wind, and spared them studding-sails free.

"Vernon is the only vessel that is an exception to the above statement; but we certainly have had a decided advantage of her to the wind. Both vessels are so superior to the others, that they look like things of another order (*as they are*) cruising away to windward of the squadron without sail. We have just been with them for six days in every kind of weather and sea; they carried all they could bear, from close-reefed topsails to royals; and we never had cause to set a course, but sometimes spared them canvas, topgallant-sails, and a reef. Favourite was lost sight of altogether one day, we in four hours, working dead to wind of her, tacking by Munday's signal, so long as it could be distinguished.

"Columbine has done more than ever I promised or predicted, and has more than answered my most sanguine expectations in every respect. Barham has not had a trial with Vernon, but Revenge goes out on the 10th with her, Vernon, and Columbine. Great efforts are making in Barham, and considerable bets are made; I have no fear of the result. The Commander-in-Chief is very partial to the brig. We have been exceedingly fortunate in executing all his orders with great despatch, and the Lords of the Admiralty have been pleased to express their approbation of the services she rendered to the

* Endymion, 44, built 1797, after the old Pomone. Sapphire, 28, built 1827, by Shipwright Apprentices. Favourite, 14, built 1829, as Cruizer (lengthened).

Euphrates expedition *; so we stand as well as our neighbours here, and I am confident he will bear me out in all I say of her. She is at this moment the most beautiful thing I ever saw, and I wish you had something for her to do. I can have no further cause to write to you about her, as I am conscious no man-of-war ever *preserved* so continued a superiority over others as she does, but beg you to believe me,

"Ever yours faithfully and gratefully,

"THOMAS HENDERSON."

"Capt. Symonds, &c."

No. 5. *From the same.*

"H.M.S. Columbine, Malta, 8th January, 1836.

"MY DEAR SIR,

"As I perceive by your last very kind letter, that you have no objection to our being removed to another station, I have written to a friend, to ask Lord Minto to give us a run to the coast, for the remainder of our time; and I feel convinced, that if she does go there, you will hear a good account of her. We have tried the rate of sailing with Revenge, Vernon, and Barham, for four days, two before, and two to, the wind; on both of which points, with very light winds, Barham had a trifling advantage of Vernon; but as the breezes freshened, Vernon became superior, and particularly when blowing strong to the wind, in weathering and stability; but she did not sail so well as I have seen her do. We had an immense advantage of the whole to the wind, and had the best of it off the wind, whilst going under 9½ knots an hour.

"Barham's sails seemed very large, and bore no proportion to Vernon's. The head of our mainmast had long complained on the larboard tack, and although several surveys had been held on it whilst carrying sail, no defect could be discovered. On the fourth day, however, when we were under single-reefed topsails, and topgallant-sails to the wind blowing hard, the spring opened so much, the men were compelled to shorten sail. Revenge carried away main topmast at the same time, and the trial was left to the frigates — Vernon weathering, and going nearly upright as long as I could distinguish them. We returned to Malta, and were despatched to the Dardanelles, and on my arrival here again, I found the succeeding trials had termi-

* The Columbine accompanied Lieuteuant-Colonel Chesney's expedition to the mouth of the Orontes, where Captain Henderson had a narrow escape from drowning, by the upset of his boat in the surf.

nated as the first. Vernon has a serious opponent in Captain Corry, but I am unaltered in my opinion that she *can* beat Barham on all points. We have had a great deal of hard work, carrying despatches to and from the Dardanelles. From the anchorage there to Cape St. Angelo, a distance of 274 miles, she ran in twenty-four hours, a part of the time under the foresail only, and whilst we could not see a mile around us for sleet.

"Rounding the Cape, it blew a hurricane, and she went 8½ under fore and main staysails, with the wind before the beam, and weathered Cerigo, which I was both proud of and pleased at, on so dreadful a night. I find no difficulty in keeping our bottom as clean as the day as she left England, and if I go to the coast I will construct a stage for the purpose, and stow it away some way. Ever yours, &c.,

"THOMAS HENDERSON."

"Captain Symonds."

"The *Standard* complains that Columbine was sent to sea with Vernon and Barham, and insinuates that on her return to Malta, information respecting the other vessels was *extracted* from her, but takes great care to say nothing of the extraordinary fact that Columbine, during a beat of twelve hours to the wind, had Barham 14, and Vernon 9 miles, dead under the lee. Nor was her bowsprit sprung, as that paper states; but an objectionable knot was in it, and as a new one could be made out of the old mast at very little expense, the Admiral Superintendent had it done.

"T. H."

No. 6. *From the same.*

"H.M.S. Columbine, Hamoaze, 14th June, 1836.

"MY LORD,

"In compliance with your memorandum of yesterday's date, calling upon me to furnish your Lordship, for the information of the Lords Commissioners of the Admiralty, with a detailed report of the qualities of the sloop under my command, and of any trials that may have taken place between her and other ships,—

"I beg to acquaint your Lordship that on weighing from the Downs, on the 2nd of September, 1834, at 5·15 A.M., H.M.S. Thalia was 7 miles directly to windward, and under sail before Columbine; that both vessels worked through the Channel the whole day under double-reefed topsails, setting and taking in topgallant-sails occasionally, and at 7·30 P.M. we anchored under Dungeness, 3 miles to windward of Thalia, having beaten

her 10 miles out of 25. On the following day, under similar sail, both vessels weighed together about a mile distant, working through the Channel as before, when Thalia was lost sight of from the mast head in 11 hours; and ever since that period Columbine has had an advantage over every ship of war she has yet sailed with, of from 1 mile to 1½ miles an hour to the wind; excepting on one occasion only, beating between the Islands of Cerigo and Servi with unsteady winds, when Childers for 3 hours following crossed on opposite tacks about the same distance, or rather less to windward than she was at starting, (viz., three cables' length); but this was a singular exception only, as the very first opportunity after, of sailing with her in open sea room off Malta, on the 7th August, 1835, under the observation of the Commander-in-chief, she beat Endymion, Sapphire, and Childers *, at the rate of a mile and a mile and a half an hour to the wind; and although Childers is the fastest vessel, excepting Vernon, she has sailed with, the advantage over her may be estimated at a mile an hour to the wind, and sparing topgallant and topmast studding-sails off the wind.

"On the first trial with Scout and Childers, by order of the Commander-in-chief, on the 5th of November, 1834, our superiority over the Scout was from 1½ to 2 miles, and over the Childers 1 mile to the wind, both in moderate winds and in strong winds: after Scout parted company we spared Childers topgallant-sails, and weathered on her nearly half an hour without them.

"On the 7th March, 1834, running with the wind abaft the beam, in a considerable sea, under treble-reefed topsails, double-reefed boom-mainsail, and fore-topmast staysail, lowering main-topsail occasionally to keep on the Admiral's beam, from 8 P.M. till 4 A.M. of the 8th, we spared Caledonia, Edinburgh, Revenge, and Canopus courses and jib, Thunderer and Portland hauling up, and setting square mainsail as necessary to keep station; and on the 9th, in working round the Island of St. George with Vernon and Portland, whilst making the last tack to weather the island, the foreyard gave way in the slings, which compelled us to pass to leeward of it again; at 54 minutes past noon Vernon spoke us abreast of the island, standing for Salamis, carrying all sail.

"Portland was then hull down a-head, steering for Salamis, also; and notwithstanding the want of our fore sail, we came up and anchored at the same time with Portland, and only 15 minutes after Vernon, each vessel carrying all possible sail.

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* Childers, 12, built 1827, by Sir W. Rule.

"3rd Sept. 1835. — At 2·30 P.M., commenced sailing with Favorite, under royals and all sail to the wind, against a heavy head sea, Favorite, 3 cables' length to windward, 2 points abaft our beam; continued on the wind, taking in royals and a reef in the topsails, following the motions of Favorite. At 4, Favorite, from 1½ to 2 miles in our wake; at 4·10 tacked per signal; at 4·40 tacked again per signal, Favorite, 3½ miles, 2 points abaft the lee beam. At 5, observed Favorite carry away her jib, and finding our superiority so great, took in topgallant-sails, and double-reefed the topsails, still gaining upon her. To the wind, with light winds, there was no comparison. During the sailing with Favorite, the wind increased gradually to strong gales, with a heavy cross sea, and Columbine was extremely light, having supplied Volage, three days previously with all her provisions, excepting ten days', to carry her to the squadron.

"From the 9th to the 13th October, 1835, in company with the squadron, making a passage from Zante to Malta, carrying all sail from royals to close-reefed topsails, in every kind of sea, Columbine never had a course set, and sometimes spared their royals, topgallant-sails, and courses, keeping her station with ease.

"On the 14th November, 1835, in a trial of twelve hours to the wind with Revenge, Vernon, and Barham; Revenge and Barham were half topsails down, and Vernon half courses down, immediately to leeward,—Revenge and Barham 14 or 15 miles, Vernon 9 or 10, distant; and in running dead before the wind with those ships she took the lead, until they went about 9 knots, when they had the advantage.

"At 6 A.M., 27th January, 1836, a French brig of war was discovered 6 or 7 miles a-head. At 7, both vessels were under topmast and topgallant studding-sails. At 8, Columbine was abreast of her. At 9, both vessels came to the wind, with light winds. At 10, they were under royals and all sail, French brig half a mile on the lee quarter. At 5, P.M., her royals were only to be seen from the deck, on the same bearing, we having left her immediately in the wind's eye 10 or 12 miles, without ever going more than 3½ knots during the day. She was a brig of 20 guns, and appeared a powerful vessel.

"On our passage to England, we came up with, to the southward of Ushant, and passed as if at anchor, the Eclipse and Scorpion packets; the first having sailed from Malta eight days before us, and although two days were lost at Gibraltar and Tangier, we arrived at Plymouth two days before them.

"I have also to state that she is extremely easy in every description of sea, that she carries her sail with uncommon

stability, being able to bear her lee ports open under double-reefed topsails and courses, going 9 knots close hauled; steers and works well; and on a recent occasion ran twenty minutes under all sail before the wind, going 11 knots, without veering the 10th part of a point, with the tiller untouched by the helmsman. And I would humbly but safely assert, she is, of the many vessels I have been in, the easiest in a head sea, and the most correct in steerage (inasmuch that our reckoning has scarcely been out a mile since I have commanded her); she also accommodates her crew with great comfort, stows foreign stores, and provisions for four months, well, drawing about 13ft. 11in. forward and 15ft. aft.

"I have the honour to be, &c.,

"THOS. HENDERSON, Commander."

"To Admiral Lord A. Beauclerk."

No. 7. *From the same.*

"H.M.S. Columbine, 10th November, 1836.

"MY DEAR SIR WILLIAM,

"The accompanying diagram, and copy of log will show you the result of a trial of sailing between Columbine, Waterwitch, and Bonetta, under very unfavourable circumstances for your vessels; Columbine having on board four months' provisions for 139 men (*i. e. more than five months' for her complement*), and a considerable quantity of stores for the squadron in the Bight of Benin and Biafra. Bonetta had nearly five months' for her crew; whilst Waterwitch * was in the best of trim imaginable, for the light winds which prevailed during the trial. She was on her way to Sierra Leone to fill up with with provisions and stores; we on our way to the coast, full as an egg, complying with the standing orders of the Commander-in-chief, directing vessels going there to carry as much provisions as they can possibly stow.

"But notwithstanding the very great disadvantage we were under, out of the four points sailed on — and those the choice of the Commander of Waterwitch — Columbine and Bonetta being governed by signals made by him — we beat her on two points very much, were equal to her on the 3rd, and were beaten by her on the 4th, $\frac{1}{8}$ of a mile. Bonetta had an advantage over her on the two first points, but dropped on the two last. Bonetta is a

* Waterwitch, 8, built 1834, by Mr. White. Bonetta, by Sir W. Symonds.

most powerful vessel and improves every day. She is the finest Lieutenant's command on the coast. The accompanying sketch is an exact copy of an official return I have made to the Commander-in-Chief. He intends to try us under his own observation, and I have no fear of having to tell you we beat her on all points, when we meet again on more equal terms. We only wanted wind. Whenever the breeze freshened we headed instantly, but Waterwitch being so much lighter was influenced by every flaw more immediately, but did not keep so good a wind as we did generally.

I was compelled to go to the Cape, and am glad of it. The Admiral was much pleased with the brig, and desired me to express his approbation of all he saw during his inspection, to the officers and crew. The same day our account for refit was handed on board, and after three months constantly under sail, in all kinds of sea, it only amounted to 23*l.* sterling; much less than my cabin expenses. She is a splendid craft. I have the lines of a boat, to be six tons, like her; and if God spares me to see one of our Highland lochs again, I shall get her up and name her Columbine.

After making an immense circuit of the coasts of Africa, we arrived at the Cape the day after Bonetta, and have had her in company ever since. She has improved wonderfully, and threatens to push us hard on some points. Waterwitch was astonished at our sailing, and they are not anxious to meet us again. Adams says, she sails much faster than Pantaloon. Since leaving this quarter for the Cape, several good prizes have been made. We are now commencing an uninterrupted cruise, I hope; and as nothing can possibly get from us, we may be successful. Will you make my kind remembrances to Lady Symonds, and believe me,

"Ever, very sincerely yours,

"THOS. HENDERSON."

"Sir W. Symonds."

No. 8. *From the same.*

"H. M. Sloop, Columbine, Bight of Benin, 15th April, 1837.

"DEAR SIR WILLIAM,

"I am anxious to tell you Columbine has been very successful since her return from the Cape, having taken three clippers with 1183 slaves on board, all by superior sailing; none of them being nearer than 15 miles at starting. The brig sails exceedingly well, and has beat Waterwitch *in every*

point. The first time we met Dolphin*, we had rather an advantage over her; but on the 31st ult. she beat Waterwitch and Columbine better than a mile to the wind in four hours. The winds were unsteady, and she started on our weather bow, by which she gained at least a quarter of a mile; she is in very fine order, and does her Commander much credit. The same afternoon Waterwitch and Columbine made sail within speech of each other at 2 o'clock; and at 4 she was three quarters of a mile a point before the lee-beam; and I dare say does not want to sail with us again.

"Both she and Dolphin should sail round us; neither of them have a stick, anchor, or hammock-netting above the gunwale. If our upper works were as clear, nothing could sail with us to the wind. Off the wind we are very superior. We met our old competitor, Thalia, the other day, and spared her courses to the wind. If we are to return to England this winter, I shall be anxious to get home before November, that we may pay her off in good order.

"I am, &c. &c.,

"Sir W. Symonds." "THOS. HENDERSON."

No. 9. *From the same.*

"St. Helier, Jersey, 16th December, 1844.

"DEAR SIR,

"It affords me much pleasure and satisfaction, at this moment of party discussion to see my letter to Lord Amelius Beauclerk, stating my opinion of the qualities of the Columbine, quoted in the *Devonport Independent* of the 7th instant; and I take this opportunity of expressing to you my regret at having been told, shortly after I saw you last, 'you had said you did not believe a word of the statements made of Vesuvius's machinery previous to Loch's commanding her.'

"I am very conscious of having done justice to every vessel, sailing or steamer, I have ever had the honour to be intrusted with; and I have letters I am proud of, from Sir Thomas Hardy, Sir W. Parker, and several others, high professional names, to that effect. Were I to tell the many extraordinary feats in sailing and making passages the Columbine performed during the time I commanded her, the one-half of the milk-and-water sailors of the day would not credit me. I had a very early opportunity of proving the truth of all I said of her to Lord Amelius Beauclerk, on my arrival on the coast of Africa. Immediately after,

* Dolphin, 3, by Sir W. Symonds.

I met the Charybdis, whose Commander informed me he had lost sight of a slaver two days ago, which he and three other men-of-war had chased for forty-eight hours previously. Knowing it to be the interest of the slaver to cross the equator with all possible speed, and having perfect confidence in the superior sailing of Columbine, I at once determined on going in quest of her; and allowing Columbine to sail *one-third faster than any slaver*, I gave an imaginary course to the chase, and shaped one to cut her before she could cross the equator.

"I succeeded in getting sight of her the third evening after receiving the information, and captured her the following morning,—a beautiful brig, with 508 slaves on board;—thus showing the truth of my statement of her serviceable qualities. What would Nelson have given to have had a cruiser to trace up an enemy's squadron in such a manner in the days of Aboukir? I have just received some information of Daring and Flying Fish; and consider, that for the Commander and Master of Daring to have been four years previously in constant practice in one of the same kind of vessels, a great advantage to her, however experienced your Commander may be.

"I am grieved to read the many unsailor-like observations one sees every day; but should our country require the services of our ships and idlers, like myself, I hope it may be my fate to command one of yours: I am confident she would come up with anything I would chase, and present a better battery to fight with than any other vessels in the Navy.

"I am, dear Sir,

"Yours faithfully,

"Sir W. Symonds." "THOS. HENDERSON."

H.M.B. PANTALOON. 8 *guns*.

Built 1831, at Troon. Tonnage 323.

No. 10. *From Lieutenant-Commander Dacres, R.N.*

"H.M. Brig, Pantaloon, March, 1832.

"MY DEAR SIR,

"I cannot help troubling you with a few lines on my old subject. We have been in (I may say) a continued succession of gales since the 9th of February, and proud as we all were of Pantaloon's sailing qualities, I do not believe there is a person in the ship that has not even a better opinion of her

than ever, from her very wonderful performances in really bad weather, such as we experienced in the Channel on the 14th and 15th of last month, in particular. She never shipped a drop of water even after we were *obliged* to clue up the main-topsail, and held her own splendidly.

"I dare say the rascals in the papers lost us, for all the vessels that started the same day put back, which I have great objection to; as it gives prejudiced people an opportunity of talking nonsense.

"Believe me to remain,

"Yours most sincerely,

"Capt. Symonds." "S. C. DACRES."

[Now Captain S. C. Dacres, of 1840, Superintendent of Haslar Hospital.]

No. 11. *From Lieut. W. Dawson, R.N.*

"H.M. Brig, Pantaloon, Portsmouth, March 27th, 1832.

"DEAR SIR,

"I have only returned into port yesterday, and found your letter of the 19th at the Admiral's office. We have had very heavy weather during the whole of last cruise, and I cannot speak too much of Pantaloon's qualities in every respect; proving herself an excellent sea-boat, very easy, not straining a rope-yarn, and working like a top; and, from all the trials I have had, I should hope, and confidently do, that she maintains all the good qualities she did when you sailed her last summer. I certainly never was at sea in a vessel like her, nor do I believe there is her match in the service.

"I remain, dear Sir,

"Yours much obliged and very truly,

"To Capt. Symonds, R.N." "W. DAWSON."

No. 12. *From Mr. R. Harris, Mate, R. N.*

"H. M. S. Pantaloon, Portsmouth, July 17th, 1832.

"MY DEAR SIR,

"As I believe Mr. Hoseason, our present Commander, has not the pleasure of your acquaintance, in the absence of Mr. Dawson, I take the liberty of writing you a few lines, which I am sure cannot fail to be gratifying, respecting our late cruise off the Tagus, in which the Pantaloon behaved to the admiration of every one in the squadron. We first tried the Asia* with the wind a-beam, under single-reefed topsails, top-

* Asia, 84, built 1824, as old Canopus.

gallant-sails, and courses. We then held our own exactly, the Asia being too powerful on that point to give us much advantage; but, on her hauling up a point, we immediately passed her.

"The Briton * had been long talking about beating us, and we were anxious for a trial, which the Admiral gave us. We started at 7 A.M., on her lee quarter, about a cable's length, under single-reefed topsails, topgallant-sails, and courses; and at 10 A.M., she was on our lee beam 3 miles. We closed her, and run about 9 miles with the wind 4 points on the quarter, and all sail set. We gained in this run about a quarter of a mile, and then hauled up two points. The Briton on this point appeared rather to gain; but at the end of 9 miles more had not passed us. We then shortened sail, and made the best of our way to the squadron, about 9 miles distant to windward. The wind was rather fresher than in the morning.

"In this beat, we not only weathered but fore-reached very much on her, and when we arrived, the Briton was above 4 miles dead to leeward. The Viper had been anxious to try with us, had we not passed him when under all sail, with our topsails and foresail only. In crossing the Bay, we had a strong breeze with a heavy cross sea under reefed courses. She proved herself to be dry, and, as far as I could judge in 4 hours, a good sea boat.

"I remain, dear Sir,

"Yours very truly,

"Capt. Symonds, R.N." "R. HARRIS."

[Now Captain R. Harris, of the Illustrious, training ship.]

No. 13. *From Lieutenant-Commander Dacres, R.N.*

"Pantaloon, off Plymouth, Saturday 8th, 1832.

"MY DEAR SIR,

"I take the earliest opportunity of giving you an account of rather a successful cruise with H.M.S. Orestes. We fell in with her off Cape Mondego at 11·30 A.M., on the 23rd; he was about 3 miles to windward. At 2 P.M., I bore up in compliance with his signal to pass within hail; the weather rather squally. Took in topgallant-sails once, but during most of the time carrying a main-royal. (I did not see the cut of his.) At 4·45., made sail again in company, and at sunset we were 5 miles in the wind's eye of him. At 9, the wind became fair, with a fresh breeze; and in a run of 100 miles, I anchored at Cascaes Bay, three hours and a half before him.

"She started from Cork two days before we left Falmouth. I

* Briton, 46, built 1812, as old Leda.

should think nothing of our having arrived the same day, had we not both encountered dead foul winds from W. to S.W., and from our both fetching in by Cape Ortegal; which proves I think that we must both have beat over the same ground. Now, when there is such a fuss in the papers about the sailing of Orestes, who now declares she beat all the squadron at Cork, I cannot help thinking that the dance we led her is very satisfactory. "Yours most sincerely,

"S. C. DACRES."

"To Capt. Symonds, R.N."

No. 14. *From Rear-Admiral Parker, Commander-in-Chief on the Lisbon Station.*

"Asia, Lisbon, 15th February, 1834.

"DEAR SYMONDS,

"I rejoice, most sincerely, that your plan of shipbuilding has answered so perfectly; I consider your triumph as nearly, if not quite, complete.

"The Ringdove joined me yesterday; a beautiful-looking vessel, and in right good hands. Lapidge reports well of her, as far as he can judge; and Dacres does justice to *my pet* Pantaloon; which is always quick and ready. I was obliged to send her back with the mail.

"Believe me, my dear Symonds,

"Yours most sincerely,

"Capt. Symonds, R.N." "W. PARKER."

[Now Admiral Sir W. Parker, Bart.]

"I hope the accounts you continue to receive of the Vernon equal your expectation. "W. P."

No. 15. *From Admiral Sir Robert Stopford.*

37, Upper Harley Street, 1st January, 1836.

"MY DEAR SIR WILLIAM,

"Considering it desirable that the Admiralty should be in possession of all the information relative to the recent trial of of sailing between Pantaloon and Waterwitch, I send you extracts from a letter, received to-day, from my son on board Pantaloon, dated 27th December, Lat. 47° 18′ N., Long. 14° 18′ W. [in the Atlantic], upon the accuracy of which I will venture to say you may perfectly rely. The 25th December was the first day of trial.

"'We ran for seven hours off the wind, first on the quarter, then on the beam, going 8 or 9 knots, at the end of

which Waterwitch was 1½ mile ahead. On the 26th we hauled to the wind together at nine o'clock, under double-reefed topsails and courses, jib, and reefed boom-mainsail, — Pantaloon with main-topgallant-sail. We started ahead of her directly, and kept it up, when she shook a reef out of her boom-mainsail. Tacked at ten; she set her main-topgallant-sail. Tacked at eleven; when she was 1½ mile to leeward. A little before twelve, out reef of our boom-mainsail; both of us set fore-topgallant-sail at once, and shook out second reefs, the Waterwitch being 3 miles to leeward at least. The wind gradually fell after one, when our advantage was not so great. We bore up at a quarter past three, and were twenty-six minutes running down to her, going at the rate of 7½ knots.

"'The day we sailed from Falmouth, the wind was light and variable, and then she played with us; but give the Pantaloon a good steady breeze going to windward, and we will bang her till she can't see, to use an elegant expression. We gained on her to-day in stays very much, being round nearly a minute before her. We were a minute and a half in stays, and I think gained a cable's length on her then.

"'On the 27th we tried with the wind a-beam, single-reefed topsails and topgallant-sails, and she beat us a little; but I don't think they sail her fairly. She started just astern of us, and tried to jockey herself ahead; but finding we could jockey also, she made our signal to keep our course. She then ran to leeward some way, and then luffed up under our lee bow, — making us luff up also to keep clear of her; and then shot ahead.

"'She has beat us to-day in three hours ahead, as much as we beat her yesterday in one hour in the wind's eye. When carrying studding-sails, she spreads three hundred yards of canvas more than we, and has a jib large enough for a frigate. She cannot fight her guns properly, her ports being too small; and her own officers say that the work we go through in a year in the packet service would tear her to pieces. Her courses have more drop than ours, owing to her bulwarks being much lower. I leave people at home to judge which is the superior vessel altogether as a man-of-war. Give me the Pantaloon!' *

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* In 1843 the condition of the Waterwitch's hull was officially reported upon in the following terms. Mr. Scott Russell says that the "Queen's yards are at least *three miles an hour* behind private yards;" but this must refer to expedition merely, since there is no

"You see that my son, upon very good grounds, prefers his own vessel to the other. I have never known the same ship to be pre-eminent in *every* point of sailing; but a great point is gained by having hit upon a mode of construction which enables them to excel in one point, and upon the whole, the most *desirable* one.

"Believe me, very truly yours,

"ROBERT STOPFORD."

"Capt. W. Symonds, R.N.,
&c. &c. &c."

[The late Admiral Hon. Sir R. Stopford died Governor of Greenwich Hospital, 1847.]

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comparison between the substantial finish of the work done in the Queen's yards and contract work outside:—

"H. M. Yard, Portsmouth, 24th July, 1843.

"SIR,

"I beg to inform you that we have just taken the *Waterwitch* into dock, and have treated her in the manner we are directed to do after a ship arrives at a certain age; and, without exception, she is in a worse state than I ever saw any vessel. I can easily conceive Mr. Peake's uneasiness at discoveries made after she was purchased; and I think it fortunate that she has returned into port after nine years' service.

"There is scarcely an edge of a plank perfect; she is completely sap-rotten; with pieces let in originally where sap or worm was found. I give you a section of what has been practised: this could never be discovered in caulking the vessel; but how she swam is to me inexplicable. The frame-timbers, in many cases, must have been altogether sap, and entirely mouldered away; others presenting a circle surrounded with sap. In fact, I have no doubt when the plank is taken off within and without board, that there will not remain an original timber sufficiently sound to continue in the ship.

"Her floors, first, second, and most of the third futtocks must be new. To imitate a frame like hers, with such large openings and every description of slidings, would be a task indeed. In fact, to build a vessel like her model, and to preserve the same light line, would be out of our power, I am certain. It cost us considerable thought to strengthen her when she was last repaired; and took a sum of 2072*l.* to make her defects good. I think it fortunate that she has run so long as nine years.

"I remain, &c.

"R. BLAKE.

"Master Shipwright."

No. 16. REPORT ON A TRIAL OF SAILING BETWEEN H.M. BRIGS WATERWITCH AND PANTALOON ON THE 26TH DAY OF DECEMBER, 1835.

Hours.	Knots.	Fathoms.	Courses.	Winds.	Weather.		Degrees of inclination by pendulum.	Smooth or rough sea.	Direction of the swell.	What sails set.	How carried helm.	Bearing of Pantaloon.	Distance by Angle.	Estimated distance.	General remarks as to the advantage gained by either vessel, and other occurrences.
					Light, mod., fresh, or strong breezes.	Steady, variable, or squally.									
9	–	–	W. b. S. ½ S.	S. b. W.	Fresh	Rather Squally	–	Rough	From S.W. on the weather bow	Courses, double-reefed topsails, jib and boom-main-sail	Amidships	S.W.	Yards. 873	3 cables' lengths	8·45, Pantaloon passed to windward and made sail on a wind on larboard tack; she had her main-topgallant-sail set, we had not. 9·30, Pantaloon weathering; Waterwitch fore-reaching. 9·35, made signal to tack; helm put down at 9·40; trimmed on starboard tack at 9·46. Pantaloon had her yards trimmed before us, and gained by it considerably. We were not able to trim the yards quick enough. 10, going 6·6 with a good head swell. 10·7, set main-topgallant-sail, carrying a slack helm. 10·43 tacked by signal; helm put down at 10·43; trimmed at 10·49. Pantaloon gained between the time of putting helm down and being trimmed again 455 yards, owing to her being able to trim her sails so much quicker than us. Our head yards were hauled as quick as hers, but we had not strength sufficient to get the tacks down and sheets aft. At 11 stowed the hammocks amidships and squared the lee guns. Helm amidships. 11·35, Pantaloon and us set fore-topgallant-sails. Not so much sea. The whole of the day we felt the want of an inner jib, ours, being so large, bagged us to leeward. 1 P.M. Pantaloon and us shook out our reef. From 11 A.M. until 2 P.M. the Pantaloon was going bodily to windward, while we were fore-reaching. Wind getting lighter. At 2 Pantaloon nearly hull down to windward. Between 2 and 3 P.M. we neared her, being able at 3 to see her white streak. 3·40, shortened sail, Pantaloon then
9·40	4	2	W. b. S.	—	Fresh	Not steady	—	Rough	S.W.		ditto	S. ½ W.	895	—	
10	–	–	S.E. b. E. ½ E.	S. b. W.	Fresh	Steady	—	Rough	S.W.		2 spokes a-lee	—	1483	½ mile	
10·40	6	6	S.E. b. E. ½ E.	S. b. W.	Fresh	Steady	—	Rough	S.W.	Courses, double-reefed topsails, main-topgallant-sail, jib and boom-main-sail	Slack	S. b. W.	1837	—	
11	2	–	W. b. S.	S. b. W.	Fresh	Steady	—	Rough	S.W.		Amidships	S.S.W. ¼ W.	2427	—	
11·30	–	–	W. b. S.	—	Fresh	Steady	—	Less sea	S.W.		ditto	S. b. W. ¼ W.	2908	1½ mile	
12	7	–	W. b. S.	—	Fresh	Not steady	—	Rough	S.W.	Courses, double-reefed topsails, topgallant-sails jib, and b.m.-sail	1 spoke a-weather	S. ¾ W.	3411	—	
12·30	–	–	W. b. N.	—	Not so fresh	Variable	—	Rough	S.W.		¼ turn a-weather	S. ½ W.	4242	2 miles	
1	7	2	W. ½ N.	S.S.W.	Moderate	Variable	—	Rough	S.W.		ditto	South	5818	—	
1·30	–	–	—	—	—	—	—	Rough	S.W.	Courses, single-reefed topsails, topgallant-sails, jib and boom-main-sail	ditto	—	—	—	
2	6	4	West	S.S.W.	Moderate	Steady.	—	Rough	S.W.		Amidships	S. ¼ E.	6876	3 miles	
2·30	–	–	—	—	—	—	—	Rough	S.W.			—	—	—	
3	5	4	West	S.S.W.	Moderate	Steady	—	Rough	S.W.			S. ¾ E.	5818	nearly 3 miles	

being S. ¼ E. nearly 3 miles. We were very dry the whole day—did not ship one drop of water. This day we had the hammocks stowed amidships on lower deck, and the lee guns squared. Impossible to take the heel by pendulum from the quick motion.

JOHN ADAMS, Lieut. Commanding Waterwitch. [Now Capt. J. ADAMS.]

No. 17. Report on a Trial of Sailing between H.M. Brigs Pantaloon and Waterwitch on the 26th day of December, 1835.

Hours.	Knots.	Fathoms.	Courses.	Winds.	Weather. Light, mod., fresh, or strong breezes.	Weather. Steady, variable, or squally.	Degrees of inclination by pendulum.	Smooth or rough sea.	Direction of the swell.	What sail set.	How carried helm.	Bearing of Waterwitch.	Estimated Distance.	Distance by angle.	General remarks as to the advantage gained by either vessel, and other occurrences.
													YDS.		
9	–	–	—	S. b. W.	Strong	Steady	8°	A head sea while on larboard tack.	Westerly.	Started under double-reefed topsails, courses, jib, single reefed boom-mainsail and main-topgallant-sails.	{2 spokes a-weather}	N.E. ½ N.	310	0·19	Started a little before 9 A.M. under double-reefed topsails, courses, jib, single-reefed boom-mainsail and main-topgallant-sail. Waterwitch under double-reefed topsails, fore-topmast staysail, and two reefs in her boom-mainsail. At 9 Waterwitch down fore-topmast staysail, set jib and whole boom-mainsail. At 9·50 answered signals to tack; tacked, 1½ minute in stays. At 10·17 Waterwitch set her main-topgallant-sails. At 11 answered signal to tack, tacked, 1½ minute in stays. 11·45 set fore-topgallant-sails and out reef of boom-mainsail. 11·50 Waterwitch set fore-topgallant-sail. At 1 out two reefs of topsails. At 1·5 Waterwitch did the same. At 1.30 Waterwitch too far to leeward to take a correct angle, supposed to be about 3½ miles. At 2 supposed distance 3½ miles. At 2·30 wind more moderate — this ½-hour we have not increased the distance. At 3 less wind; Waterwitch appears to have neared us a little. At 3·30 Waterwitch shortened sail, distance about 3 miles on our lee beams. Bore up to close; the inclination of pendulum could not be accurately ascertained, the motion of the brig being so quick. It appears to me that the Pantaloon has a decided advantage over the Waterwitch close-hauled with a fresh breeze, but not so in light winds. I have remarked during this day's trial that the brig has been remarkably easy and dry, although going against a head sea.
9·30	–	–	—	"	"	Unsteady	8½				"	N. ¾ E.	938	0·24	
10	6	4	W.S.W.	Variable	"	Variable	9				"	N. b. W.	1504	0·31	
10·30	–	–	"	"	"	"	9				{1 spoke a-weather}	"	1664	0·34	
11	7	–	E.S.E.	Southerly	Fresh	"	9				"	N. b. E.	2401	0·52	
11·30	"	"	"	"	"	"	9				{2 spokes a-weather}	N.N.E.	3673	1·15	
12	8	"	W. b. S.	S.S.W.	"	Unsteady	8½					N. b. E. ½ E.	4029	1·23	
12·30	"	"	"	S.W. b. S.	"	"	8½					N. ½ E.	5204	2·13	
1	7	4	West	"	Moderate	"	8					North.	6573	6·41	
1·30	"	"	"	"	"	"	8					N. ¼ W.			
2	6	–	West	"	Moderate	"	7					N. ¼ W.			
2·30	"	"	"	"	"	"	5					N. ¾ W.			
3	3	4	W. ½ N.	"	Light	"	4					N. b. W.			
3·30	–	–	—	—	—	"	4					N. b. W. ½ W.			

(Signed) NICHOLAS CORY, Lieut. Commanding Pantaloon.

[Now Capt. N. Cory, of 1840.]

No. 18. *From Rear-Admiral Hon. Sir C. Paget.*

"Devonport, Saturday evening, ——— 10th, 1836.

"My dear Sir William,

"When we were out for a few hours the other day (no trial *whatever* having taken place between the two vessels) a report was spread about that the Scylla had beat the Pantaloon. This came to my knowledge this morning, and accordingly I made the signal for them both to weigh, with a fine breeze about north-west; and I attended in the Emerald.

"I started them from the Breakwater to go round the Eddystone and back. Pantaloon had the lead about two or three cables' length. Wind abaft the beam, a little south-west swell, and with single-reefed topsails, courses, topgallant-sails, royals, and fore-topmast and topgallant-sails. Pantaloon kept the lead, rounding the Eddystone four minutes and a half before Scylla; and, coming back on a wind, and having to make a couple of tacks, rounded the light-vessel *forty-two minutes* before her competitor. As this was done in sight of all who report these matters, I shall be curious to see what the Devonport and Plymouth papers (which are so *fond* of you) say on this occasion.

"Yours truly,

"Charles Paget."

[The late Admiral Hon. Sir C. Paget died 1839.]

"Sir William Symonds."

"I wish you had influence to break up, or sell for *fire*-wood, the Hercules *, and most of her class. The only way, and that I believe *you* don't patronise, is to make Barhams of the best of them. "C. P."

No. 19. *From Captain Sir D. Dunn, R.N.*

"Yarmouth, I.W., 16th February, 1844.

"My dear Symonds,

"I have this moment received your most friendly chit with its accompaniment from Mr. Walker; and as it is a counterpart of the one Mr. Northcote sent to Captain Hutton some

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* Hercules, 72, built 1815 by Surveyors of Navy. The Barham was one of this class, before cut down.

time ago, I shall consequently not send it on to you as I had intended.

"Stupid fellow that I was to have omitted any mention of Barham and your dear little Pantaloon; nor can I account for having so done in any way, save that of being in *disgust* with the fellow whom I *then* imagined to be the author of so barefaced a calumny, and whom I *now* find to be confirmed by your statement.

"I never witnessed a fairer trial than took place off the Dodman between Barham, Curaçoa, and the little Pantaloon; and, as Captain of the Curaçoa on that occasion, I *un*hesitatingly aver that Pantaloon most shamefully beat *both* ships, and, strange to say, outcarried them. In fact, had I not frequently witnessed the Pantaloon's wonderful sailing, I assuredly would have doubted that any *square-rigged* vessel could have accomplished what I *saw* her do, whilst you had the management of her; and I am *sure* I speak the sentiments of the squadron (save those *wilfully blind*, of which class is "Albions" No. 2); nor did I ever before hear of it being disputed for an instant. ——— owes neither Vanguard nor Vanguard's Captain any love, and I may also add Vanguard's *constructor!*

"I cut far too deep into the pride and vanity of the man to be easily or readily forgiven, when I had *moral* courage enough to be an exception to a general rule off Alexandria; and that too within pistol-shot of each other, where *every voice of six sail* of the line could be heard.

"At the eleventh hour they have sent Queen out, and if I may judge from the account in the newspapers, right well she has done her work.

"Should you have a *spare* moment, do pray let me hear particulars, for I am sure *Millar* will have informed you of all that was done;—as to *out*-carrying Vernon, if *properly* handled, they may 'tell *that* to the marines;' although the Queen's stability *far* excelled any three-decker's I ever saw.

"That you may live to shame your vilifiers and traducers is the heartfelt wish of

"Yours,

"D. Dunn."

[Now Admiral Sir D. Dunn.]

"Sir William Symonds,
&c. &c. &c."

H.M.S. VERNON, 50 *guns*.

Built 1832, at Woolwich. Tonnage 2082.

No. 20. *From Captain F. A. Collier, R.N.*

"H.M.S. Vernon, at sea, 17th September, 1832.

"SIR,

"In compliance with your directions to report to you my opinion of the qualities of H.M.S. Vernon under my command, I have to state that she stows infinitely better, and more than I had anticipated; she stands well up to her sail, better than any vessel I ever saw, and *is the easiest ship I ever was at sea in.* Against a heavy head sea she sometimes pitched deep, but so very easy that not a yarn could be strained. She rolls perfectly easy; in working, she is the most handy ship I ever was in; and in wearing, she quite surpassed my most sanguine expectations. Take the ship altogether, *I think her quite perfection.* There are some minor things in her fittings, that in my opinion might and ought to be altered—such as her magazine, which is too confined and requires some alteration; and, had she two guns less on the quarter-deck and forecastle, I think it would improve her.

"The gun carriages on both decks would bear lowering three inches, and by so doing would take weight off the upper works, and make the guns more handy.

"As a roadster, we have had no experience of her. I shall forbear making any observations as to her sailing qualities, you having witnessed her superiority.

"I have the honour to be, &c.,
"F. A. COLLIER."

[The late Rear-Admiral Sir F. A. Collier died 1849, on the China command.*]

"Vice-Admiral Sir P. Malcolm, K.C.B.
&c. &c. &c."

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* He was a protégé of Nelson's, under whom he served, in the old Vanguard, at the battle of the Nile.

No. 21. *From the same.*

"H.M.S. Vernon, 1832.

"My dear Sir,

"Since you left us we have had another trial on a wind with Castor. We carried a reef out more than she did, and beat her still more than we did the day you left us. As for Stag, she was shamefully beaten by Castor. We have had a run before the wind and again beat Castor, which I did not expect. In both these trials Castor had the advantage of the start. Yesterday the ship quite astonished me. Sir Pulteney was manœuvering the squadron; Vernon wore like a jolly-boat: I never was in *so handy a ship.*

"I remain, &c.,

"Admiral Sir T. Hardy." "F. A. Collier."

No. 22. *From the same.*

"H.M.S. Vernon, 1832.

"Dear Symonds,

"Vernon is indeed all you wish. The Frenchmen were, as most people are, surprised; and our sailing has astonished them the more. The French frigates that came round with us are sad tools; we spared them two reefs, royals, and studding-sails, and then went from them. Her *handiness has quite surprised the pilots.* We were rather jammed at weighing, but she was as handy as a cutter. They all say we are too long-legged for the Dutch coast in winter. We must only look out sharp. I think there will be some slashing work when the dark nights come on. Yesterday it blew very hard, and Castor was struck with lightning; her mizenmast was struck, but no great damage done, as he can repair it himself.

"F. A. Collier."

"Capt. Symonds, R.N."

No. 23. *From the same.*

"H.M.S. Vernon, 1832.

"Dear Symonds,

"Your son will have told you that I really had not time to reply to your letter before; but now for it, my hearty. Had I a choice, I should prefer Earl's pump to Downton's; the closets I never saw, but the pump gives trouble, and at the same time is not so very superior to the common pump. Batten's compressor is decidedly an improvement, and I think good. New Zealand spars for large ships are excellent; I never saw topmasts and jib-boom stand like Vernon's. The magazine

wants some alterations; it is much too confined, and wants more air.

"I wrote to Sir T. Hardy, and explained all about the head and gallery. The fact was, the wind flew round from S.W. to N.W., which brought the ship suddenly up, and against a heavy head sea; the squall coming first on the quarter, gave her fresh way; and coming or meeting rather the sea, she kicked her lee head, &c., away. Had she not been an extraordinary easy ship, she must have carried away every mast in her. As to the gallery, that was no fault of the ship's; it was too slightly put on; and what did go was inch fir very slightly secured. My two midship deadlights were open at the time, and a nasty cross sea going; for the wind was from the N.E. strong, it having been blowing from the S.W. to N.W. before very hard.

"But, Symonds, Sir P. M—— would make the world believe that Vernon is a d—d bad craft; yet look where he placed this ship, that he says is too large for a frigate—amongst all the sands from Walcheren to the Hook of Holland; and sends smaller vessels off the Texel, placing that squadron under a very junior officer to me, though one who, I am quite satisfied, would have done the work very much better than I could. There were five frigates ready for sea in the Texel: Lockyer had Stag, Castor, Volage, and Rover; they would find plenty of work, if the Dutch were as in former times. We never were at anchor in very bad weather, therefore I cannot say what kind of roadster she is. I always kept under sail, in preference; under low sail, she is a splendid vessel. The Frenchmen admired her greatly. I hear Sir George Cockburn talks of reducing her lower masts; she is, I think, now under-masted.

"As to her weatherly qualities, she is superior to any ship I ever saw. Malcolm has written here to say he fears Snake is lost: Heaven forbid! She has nearly 100 supernumeraries on board, and many things for the squadron.

"I must now say, God bless you, my hearty; and may you long continue where you are, that our service may have the advantages of your superior plans.

"F. A. Collier."

"Capt. Symonds, R.N."

No. 24. *From the same.*

"H.M.S. Vernon, at sea, November 22, 1832.

"My dear Sir,

"As you know, the French Admiral has hoisted his flag in a large frigate. I met them, the other day,—the Admiral and

his four frigates. At a quarter before two, they were 5½ miles in the wind's eye of us, carrying single-reefed topsails and topgallant-sails; water smooth. I then made sail, and, at 20 minutes after 4, fetched to windward of all of them. One of them was their best sailer, the Ariane; she was launched since Vernon. We have had another run with Castor, and appear to beat her more than before. Lockyer is now perfectly happy in his Stag, although we gave him a good dressing the other day, in company with Castor. Dark nights and foggy days do not make this very agreeable.

"I am, &c.,

"F. A. COLLIER."

"Admiral Sir T. Hardy, G.C.B.,
&c. &c. &c."

No. 25. *From Captain M'Kerlie, R.N.**

"H.M.S. Vernon, at sea, 8th August, 1834.

"MY DEAR SIR,

"You will perhaps recollect that we sailed in the President† for Halifax, from Spithead, on the 29th May; and, after a stormy passage, we arrived there on the 1st July. Sir George Cockburn was not there, but had left orders for me to join him at Bermuda, where I found him on the 15th July, with his flag on board Vernon. On the 17th we changed ships. I never had been on board Vernon before, and I was never more astonished in my life, to see the difference between the two ships.

"On the 23rd July I sailed again for Spithead, where I expect to arrive to-morrow, which will be a very quick passage. The Vernon is a splendid ship; sails and works like a jolly-boat; and I do not fear but she will be made to answer your most sanguine expectations as well as my own. I have no doubts about it, and nothing shall be wanting on my part to accomplish the end we have in view.

"Now, my good sir, as a proof of her being an easy ship, Mr. Bradshaw, the Master, took an azimuth at the time she was going 11 knots 6 fathoms—a circumstance never heard of before; and, every way I have tried her, she is easy to a degree. The only way she has not been tried is upon a wind, in a head

* Capt. M'Kerlie was sixty years old, when appointed to Vernon.

† The President, 50, a copy of the American President, was built 1829, and measured 1537 tons.

sea; and even then I have no fear but she is the finest ship in the world. Her defects are trifling. We are now in sight of Spithead.

"I remain, &c.,

"JOHN M'KERLIE."

[The late Rear-Admiral M'Kerlie.]

"To Sir James Graham, Bart."

No. 26. *From O. Lang, Esq., Master Shipwright.*

"Woolwich Yard, 6th September, 1834.

"MY DEAR SIR,

"I remember that I promised to give you an account in writing, of the remarks I made when I surveyed the Vernon afloat, at Sheerness, last week. The fact is, that I could not perceive the least sign of working in any part; everything appeared as firm as when she was first built upon the slip: not a crack to be seen in any of her fastenings; neither whitewash nor paint broken. Several pieces of waterway have shrunk, from having been green and exposed to a hot climate; as well as her top sides, which have not been caulked since she left England (because they would not spoil the paint). The ship does not require a single bolt, nor a nail anywhere, as additional fastening. She only requires a good caulking; and I have great satisfaction in saying that she is the most perfect ship I ever saw, under the circumstances which have occurred to her since she was built.

"I can see nothing but shrinkage, and it would be folly in the extreme (I am sure you would say so with me, if you were to see her) to attempt to add any fastenings. In fact, it would only tend to weaken the parts that are already well secured. I left her lying in a very pretty situation: hull light, clear hold, stores and everything out below, masts, topmasts, lower yards, topsail-yards, and rigging all over head, except topgallant-masts, which were down; all her guns on both decks run out. I think this is one way of trying a ship's merits. The like I never saw before. The guns were always the first thing to be taken out when a ship was cleared of her stores.

"Believe me, &c.,

"O. LANG."

"John Edye, Esq., &c. &c. &c.,
Admiralty."

No. 27. *From an Officer of the Vernon.*

"February 6th, 1835.

"You say you wish to hear the true account of our trial with the Barham; well, I suppose I must tell you, although it is much against my inclination, for it is so different from our trials with the Portland, &c. We have had a great many trials off Malta, the Revenge acting as umpire; but they all proved so unsatisfactory, that Captain Elliot * declined giving his opinion as to which ship showed the superiority; the Admiral did the same; so that the reports from each ship are sent to the Admiralty for their decision. Of course, as the umpire declines giving his opinion, the Admiralty will not take upon themselves to do it; so that all bets must be withdrawn. We were so confident of beating the Barham when we left Malta, that in consequence of their having boasted that they beat us off Zante, we offered to take any bets on the approaching trials to the amount of 200*l.*; only one bet was however accepted, which was a quarterly bill between the pursers of the Barham and Vernon, and which is not yet settled.

"In light winds with royals set, the Barham beats the Vernon; but in fresh breezes, the Vernon beats the Barham. The Vernon can carry sail longer than the Barham, and is a much easier ship in a sea. You will naturally say if this is the case, how can there be any doubt as to which is the superior ship? Nearly all the time we were out, light winds prevailed, so that the majority of trials were in the Barham's favour; although the superior point was in our favour. But it is all stuff talking about the Barham beating the Vernon; let the Vernon be in the same trim as she was when she sailed with the Portland, and the Barham will not do a bit more with her than that ship did.

"Indeed I would bet my existence, that in fresh breezes on a wind, the Portland will beat the Barham; for the most we were on a wind with the Barham (and then we were beating her) was 9½ knots; whereas, when we tried with the Portland, under the same sail, we were going 10¾. The greatest proof of our being out of trim, is that now we only beat the Revenge half a mile in the same time that we used to beat her 10 or 12 miles.

"The Revenge has certainly improved in her sailing, but not near to that extent. However, we have at last arrived at what some people appear to consider the *height of perfection*, a dry forecastle. Deuce take a dry forecastle, I say; let her slip through

* See letter of 16th Dec. 1835, farther on.

the water as she once did, the admiration and wonder of all who beheld her, and she may wet the lower deck for all I care, or I believe any one else inside of her, except the mate of the lower deck. . . . . But our fame is now so firmly established that it is not a thing of this kind will shake it in a hurry. Captain Symonds said, when he heard of these trials, that he did not care a pin about it, for he was quite convinced that if his ships were handled as well as his opponents', they would always beat them."

No. 28. *From Captain M'Kerlie, R.N.*

"H.M.S. Vernon, Vourla Bay, 17th February, 1835.

"My dear Sir James Graham,

"It affords me very great pleasure in communicating to you the pleasing intelligence of Vernon's sailing with the squadron, which consists of the following ships: Caledonia*, flagship, Edinburgh †, Canopus ‡, Revenge, Malabar, Thunderer §, Vernon, Endymion, Tribune, Childers, and Medea steamer, every day from Malta to this anchorage. The signal was made to try our rate of sailing, sometimes with the whole fleet, and sometimes with particular ships; and, to the astonishment and admiration of every ship and every individual in the squadron, the Vernon walked away from them the same as if they *were a set of merchant ships.* I have had every opportunity of trying her with them, both by the wind and going large.

"The captains dined with the Commander-in-Chief yesterday; there was not one dissenting voice amongst them in saying, that the manner in which we left them astern, was more like magic than anything else; nor could they have believed it, unless they had seen it, that one man-of-war was able to beat another so much as Vernon had beat them all. I really never saw the like of it before, myself; and I hope that in the course of a short time all this deep-rooted prejudice against Vernon must for ever cease: you may rest assured that nothing on my part shall be wanting to accomplish so desirable an end. May I beg you will communicate this to Captain Symonds, for at present I have not time to do so. All the captains have been on board to see her,

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* Caledonia, 120, built, 1808, by Sir W. Rule.
† Edinburgh, 74, built 1811; now a screw block ship.
‡ Canopus, 84, taken from the French, 1798.
§ Thunderer, built 1834, a copy of Canopus.

and they all declare they did not think there was such a ship in the world; and the opinion is, that Sir George Cockburn will very soon stand alone with respect to her.

"I am, thank God, happy and well, and

"I remain, &c.,

"JNO. M'KERLIE."

"To Sir J. R. G. Graham, Bart."

No. 29. *From the same.*

"H.M.S. Vernon, off St. George*, 9th March, 1835.

"SIR,

"Agreeably to your signal, made this morning, respecting the trial of sailing between H.M. ships Vernon, Portland, and Columbine, I have the honour to state for your information that at 9.25 A.M., Portland was on our weather beam half a mile. At 10 A.M., Portland in our wake, by crossing her bows from to leeward. At 11·30, tacked, when Vernon was 1 mile to windward of Portland. The Columbine had tacked some time previous, but had fallen considerably to leeward; did not see her again until her fore-yard carried away. At 12, Portland north, or 1½ mile astern; when she shortened sail and made the signal — 'had sprung a topmast.'

"I have the honour, &c.,

"JNO. M'KERLIE, Captain."

"To Vice-Admiral Sir Josias Rowley, Bart.,
Commander-in-Chief, &c. &c. &c."

No. 30. *From the same.*

"H.M.S. Vernon, at sea, 13th March, 1835.

"SIR,

"In obedience to your signal made this morning, to close with the Portland and Endymion, as also to your second signal No. 202, to try our rate of sailing with these two ships:—We were then going free, with the wind nearly aft; at 9·13 A.M., the Portland was about 2 points before the starboard beam, when she made sail, and the Vernon did the same; Endymion was then about 2½ points before the Vernon on starboard beam. At this time the wind was nearly aft, and the signal was made to the Thunderer, to try her rate of sailing with the frigates, being at the time about two points abaft the larboard beam of Vernon. The sail then set on board Vernon

* St. George's Island, or Cardinal's Hat, off Cape Colonna, in the Archipelago.

was—single-reefed topsails, topgallant-sails, foresail, two main-topmast studding-sails, and the two lower ditto foremast. It was blowing strong, and we going at the rate of 11 or 12 knots per hour. This was continued until 1·20 P.M., when the general recall was made: the Vernon was then about 3½ miles ahead of Portland, and 4 miles ahead of Endymion. Had we not carried away the sheet of the main-topmast studding-sail, as also the tack and sheet of starboard lower ditto, we might have been nearly 5 miles ahead of Portland, and an equal extended distance from Endymion.

"With respect to the Thunderer, when the recall was made, we were 6 miles ahead of her, the wind being nearly aft the greater part of the time.

"I would say, as far as my knowledge goes of the Vernon, that it is her worst point of sailing.

"I have the honour, &c.,

"JNO. M'KERLIE, Captain."

"To Sir Josias Rowley, Bart."

No. 31. *From the same.*

"H.M.S. Vernon, at sea, 15th March, 1835.

"SIR,

"In compliance with your signal to the frigate this morning, I beg to state that at 6·45 A.M. I made all sail, nearly close hauled; the Portland at the time about 2½ cables' lengths on our lee beam; the Endymion 3 cables' lengths and 2 points before the lee beam; and the Thunderer 2 points abaft the lee beam, about 2 miles. During the trial the wind was pretty steady, we carrying royals the whole time, and for a short period topgallant studding-sails, and fore-topmast ditto, going generally at the rate of 7 knots per hour.

"At 2·45 P.M., the general signal was made to shorten sail and bring to, with the main-topsail to the mast, which was immediately complied with on board Vernon. At 2·50, Portland, was then right astern about 12 miles; Endymion astern about 13 miles; but at the advanced distance we were then from them, it is impossible to vouch for its being altogether correct. At the time of our shortening sail, the distance from the Thunderer was so great as to prevent her being distinguished from the Canopus.

"The superiority the Vernon had over the other two frigates must have been plain to the whole squadron; and in all my ex-

perience I never saw one man-of-war leave another so fast as we did those two ships; nor did I think it possible to do so.

"I have the honour, &c.,

"JNO. M'KERLIE, Captain."

"To Sir Josias Rowley, Bart."

No. 32. *From the same.*

"H.M.S. Vernon, at sea, 16th March, 1835.

"SIR,

"As the signal was not made this morning for written reports of trial with the Portland, Endymion, and Vernon, I take the liberty of making one out and transmitting it for your information.

"At 8·22 A.M., made sail agreeable to your signal for trial. We were then as follows: Portland, on the weather beam, about 2½ cables' lengths; Endymion about the same distance, and about 2 points before the weather beam. We had then set, single-reefed topsails, topgallant-sails, courses, jib, and spanker.

"At 11 A.M., Endymion 4 miles on the lee beam; when she shortened sail and made the signal, 'had sprung her bowsprit.' It was then blowing a good fresh breeze, and the Portland was about 3 miles astern. At 1·15, answered signal to tack, when Portland was 6 miles right astern of us. At 1·26, answered signals to bear up; Portland was then 3 miles on our lee beam. At 1·38 P.M., tacked and bore up; Caledonia about 13 miles to leeward, it blowing at the time strong breezes and a little squally.

"In conclusion, I beg to observe, that under every circumstance, on this, as well as on all the former trials, the Vernon has behaved well and remarkably easy.

"I have the honour, &c.,

"JNO. M'KERLIE, Captain."

"To Sir Josias Rowley, Bart."

No. 33. *From the same.*

"H.M.S. Vernon, at sea, 17th March, 1835.

"SIR,

"In obedience to your signal No. 170, made at 8·30 A.M. this day, to run down to leeward and bring Caledonia to bear from Vernon, W.S.W. 7 miles:—At 10, this was accomplished, when the mizen-topsail was backed to allow Portland to close.

At 10·15 A.M., made sail on the larboard tack, Portland then one point abaft the weather beam, 2 cables' lengths; the Caledonia W.S.W. 7 miles; got up topgallant yards and set the sails. In consequence of the light baffling winds, the two ships kept close to each other until noon. At half-past twelve, passed Portland to windward. At 2 P.M., rejoined the Admiral, and tacked on his weather beam; Portland on our lee quarter about 1 mile.

"I am sure, sir, although little was done this day with respect to advantage of one ship over the other, yet that little would be better seen and judged of from the Caledonia than from anything I can write on the subject.

"I have the honour, &c.,

"JNO. M'KERLIE, Captain."

"To Sir Josias Rowley, Bart."

No. 34. *From the same.*

"H.M.S. Vernon, at sea, 18th March, 1835.

"SIR,

"In obedience to your signals, Nos. 202 and 417, made at 9·20 A.M. this day, to Vernon and Portland to make sail and close with the land:—The Portland was then about 2 cables' lengths on our lee quarter, Caledonia about 1 mile on our lee beam. At 11·25, made Goza right ahead, or W.S.W., which I immediately communicated to Caledonia by signal; the Portland was then about 4½ miles astern.

"This day the Vernon was under single-reefed topsails, courses, topgallant-sails, jib, and spanker, blowing fresh, and going most of the time 10 knots. At 3·30 P.M., shortened sail close in with the harbour, when Portland was about 7 or 8 miles astern of us, and the squadron 12 or 13. It affords me very great pleasure, that in all the trials Vernon has had with the other ships, that you have been an eye-witness to our proceedings; and I am sure, from your being impartial, that the ship I have the honour to command will receive all manner of justice in your official reports to the Admiralty.

"I have the honour, &c.,

"JNO. M'KERLIE, Captain."

"To Sir Josias Rowley, Bart."

No. 35. *Enclosure from the Board.*

"Admiralty, 9th May, 1835.

"SURVEYOR OF THE NAVY,

"Herewith you receive a letter from Vice-Admiral Sir Josias Rowley, Commander-in-Chief of His Majesty's ships in

the Mediterranean, together with its inclosures, reporting the trials of sailing between the Vernon and other ships of his squadron; and it is their Lordships' direction that you return these papers to this office after having perused them.

"By command of their Lordships,

"JOHN BARROW."

"Caledonia, in Malta Harbour, 2nd April, 1835.

"SIR,

"With reference to Mr. Barrow's letter of the 24th November last, No. 143, conveying to me the directions of the Lords Commissioners of the Admiralty to take the Vernon under my command, and signifying their Lordships' further desire that I embrace every opportunity to cause that vessel to be tried as to her rate of sailing and other properties as a ship of war, under every circumstance of weather, with the Portland and any other fast-sailing ship, and directing me to report particularly the results of these trials:—

"I have to acquaint you, for their Lordships' information, that at 8·55 A.M., on the 9th ult., I directed the Vernon, Portland, and Columbine to try their rates of sailing accordingly, and ordered the squadron generally to remark particularly the result, and to report upon it. It was then blowing a fresh breeze; and, after a trial of three hours' duration, I observed that the Vernon had so far weathered on the Portland, as to claim a decided superiority over that ship when close-hauled. The Portland at noon sprung her fore-topmast. The Columbine during this trial fell considerably to leeward.

"On the 13th, at 9·20 A.M., I ordered the Thunderer, Vernon, Portland, and Endymion to make a comparative trial without risking their spars, directing the squadron generally to observe and report, as on the 9th. The wind was blowing fresh, with squalls at times. The result of this day's experiment, which lasted about four hours, also proved the superior capabilities of the Vernon when going large, or before the wind; although Captain M'Kerlie is of opinion that it is her worst point of sailing. On the succeeding day a trial took place between the four ships named on the 13th; but on account of the wind being light and not steady, no satisfactory opinion could be formed of the result. The trial on the 15th further established the Vernon's superiority, in fore-reaching the Portland and Endymion during five hours' sailing, from 10 to 12 miles, leaving the Thunderer further astern.

"On the two subsequent trials, the 16th and 18th, the Ver-

non still supported her high character, which the result of these several experiments has gained for her; and I am of opinion, that she is in all points a very superior vessel. I transmit, for their Lordships' further information, the reports hereon made to me by the captains of the squadron.

"I am, Sir,

"Your obedient servant,

"JOS. ROWLEY,

"Vice-Admiral."

"The Right Hon. G. R. Dawson,
Admiralty."

No. 36. *From Lieut. E. Wilson, R.N.*

"H.M.S. Vernon, Malta, 19th March, 1835.

"MY DEAR SIR,

"We arrived this day at Malta in company with the fleet; and I have great satisfaction in relating to you the result of five more trials ordered by the Admiral between Vernon, Thunderer, Portland, and Endymion; the rest of the fleet carrying all the sail they could set. The Columbine, I regret to say, had only one trial with us, having carried away her fore-yard.

"The first trial commenced on the 9th, by the wind, under single-reefed topsails and topgallant-sails; being as much sail as we could well carry. At 8·50, Portland being half a mile on Vernon's weather-beam, and Columbine a quarter mile on her quarter, the trial began. Endymion had dropped so far to leeward of the fleet during the night, that the Admiral did not wait her coming up. The Thunderer, with the rest of the fleet, were in close order of sailing about half a mile to leeward of us. In less than 30 minutes we crossed the Portland's *bows;* and, as she is a long ship, and reaches remarkably fast, you may imagine it was no very easy task. Our skipper would have bore up once or twice when close under his bows, never having seen anything of the sort before. However, I knew there was no danger, concluding he would soon give her a shake; which he no sooner did, than she began to drop, and we walked away in the wind's eye at the rate of three quarters of a mile an hour.

"The Columbine, much to the astonishment of every one, but more particularly myself, dropped to leeward not only of Vernon, but Portland. She was evidently trying to fore-reach, but could not succeed. About this time the Admiral made the signal for Vernon, Portland, and Columbine to work up and sail round the Island of St. George, then about 8 or 9 miles to windward, and rejoin him as soon as possible. The wind having

increased to a strong breeze, Thunderer, with the rest of the fleet, bore up for Salamis. Columbine soon after tacked, intending to pass to leeward of the island. Portland and Vernon stood on until we could fetch to windward of it. At 11·20 we tacked, as did Portland also, she being two miles on our lee quarter.

"On this tack we met a short head sea; but we were going 10 knots, perfectly easy and dry. Portland appeared to dive deep, and was evidently much pressed. At about noon we found we could weather the point; trimmed and kept her half a point free; heavy squalls at times — Portland dropping very fast, and plunging dreadfully. At 12·10 lowered his jib down, and at 12·15, after a *heavy pitch*, saw all sail shortened on the foremast, and she running before the wind with signal flying, '*have sprung fore-topmast.*' The Vernon stood on, and having opened the point, beheld, with the greatest regret, poor little Columbine with fore-yard carried away in the slings.

"Ran down to inquire if she wanted assistance; found her clearing the wreck, but did not require help; so we made sail for the fleet (then distant 12 or 14 miles), carrying studding-sails alow and aloft. Portland also before the wind under all sail, 10 miles. At 3 passed the Portland, and at 3·40 came up with the whole fleet, to the perfect astonishment of every one. At 3·50 the wind suddenly increased; so much so, that every ship was reduced to double-reefed topsails with the wind a-beam. Vernon carried on nobly, single-reefed topsails and topgallant-sails, her inclination being only 5½ degrees; and the officers of the different ships gazing on her with wonder and delight. At 4·30 anchored at Salamis. Columbine was sent to Malta.

"The second trial took place on Friday, the 13th, with a strong breeze right aft. At 8·30, being in close order of sailing, the signal was made, and the trial commenced under single-reefed topsails, topgallant-sails, and foresail, with main-topmast studding-sails, and fore lower studding-sails. It lasted until 1.20 P.M., when we had distanced Portland and Endymion 4 miles, Thunderer 6, Admiral and squadron 12 miles.

"The third trial was on Sunday, the 15th, with the wind a point free. At 7, being on the Admiral's weather-beam, the signal was made to try rate of sailing. We could just carry our royals, and we left all astern at a most wonderful rate; the continued, say steady average, rate of sailing about 8 knots. At 1·50 the signal was made to bring to, when the Portland, Endymion, Thunderer, and Canopus were allowed, by all on board, to be 11 or 12 miles astern; the rest of the fleet scarcely visible from the deck; and when it is considered that all this

was accomplished in something less than 7 hours, you will, I am sure, partake in the satisfaction and wonder such a surprising feat generally created. The Admiral, by his own account, ran 21 miles, and did not overtake us until sunset; so that, had we continued the trial instead of bringing to, every ship would have been fairly out of sight.

"The fourth trial commenced on Monday with a fresh topgallant breeze, which gradually increased. At 8·30 started nearly half a mile to leeward of Endymion and Portland. At 8·50 crossed their bows. Soon after this, Endymion unfortunately sprung her bowsprit, and of course bore up. Portland and ourselves continued the trial until 1 P.M., when we tacked, and passed about 3 miles to windward of her. The Thunderer stood no chance, and kept company with the fleet, who were at this time reduced to treble-reefed topsails; and we had weathered them about 10 miles in the course of the trial. It blew strong all night, with a pretty considerable swell. Vernon kept her station, sparing the whole fleet courses, and Portland the foresail.

"Next day we were in great hopes that the long wished-for trial would at length take place, as it still continued blowing strong; but the Admiral delayed making the signal so long, that by the time we had taken up our station (Portland and Vernon having to run 7 miles to leeward of the fleet), the wind gradually fell, and in less than an hour we were under royals, going scarcely 3 knots; the trial, in consequence, though much in our favour, not worth speaking of.

"The fifth and last trial took place when abreast of Cape Passaro. At 9 our signal was made to proceed ahead and make the land, and general signal to try rate of sailing. There was a stiff topgallant breeze, with the sea ahead, and I never knew her to behave better. We just laid our course for Malta, going 10 knots, and we left the whole fleet much the same rate as on Sunday. At noon made the signal, 'Land ahead;' and at 3·30 tacked, close off the harbour's mouth to sail for the fleet, who were at this time 11 or 12 miles dead to leeward of the port.

"We could have anchored at 4 o'clock had we obtained permission; whereas not one of the fleet could accomplish it until the next morning. I am sorry the Admiral did not allow us to go in, as it would have shown the folks on shore our decided superiority; there were many who saw it as it was.

"I hope this account will please you, though I cannot but regret the want of a trial in blowing weather; for myself, I have not the slightest doubt but we should cripple the whole squadron. A fore-topmast and a bowsprit in our cruise is pretty well, I think, besides numerous studding-sail booms; this will

show, at least, it is not altogether light winds we have had. The Admiral, all the captains, and, in short, every one whose opinion is worth having, are delighted and astonished at our performance. Many own themselves to be converts; and the Commander of the flag-ship, who formerly belonged to Vernon, is, I believe, among them. Official reports have been sent from every ship to the Admiral, which will be presented to the Admiralty by this packet. Captain M'Kerlie has sent a copy of his to Sir James Graham; so that I am sure we shall have justice done to us this time.

"Believe me to be, &c.,

"EDMUND WILSON."

"To Captain W. Symonds,
Surveyor of the Navy."

No. 37. *From Captain M'Kerlie, R.N.*

"H.M.S. Vernon, Malta, 25th March, 1835.

"MY DEAR CAPTAIN SYMONDS,

"It is with much pleasure and satisfaction to myself that I have the pleasing news to communicate to you, that Vernon is everything that I could wish, and really far beyond my most sanguine expectations. On our passage from here to Vourla we had several trials with the Thunderer, Endymion, and Childers, as also Tribune. There were some days we nearly ran them hull down in 6 hours, and some of the fleet only with topsails out of the water; at other times the general signal was made for the whole squadron to try their rate of sailing. This was generally about half-past 8 in the morning, and about 5 P.M. generally recalled; when, of several ships astern, we could only see part of their topsails, and the frigates and sloops hull down. On our return from Vourla, we had Portland and Columbine in addition to the above ships.

"The first trial was with Portland and Columbine. The signal was made to sail round St. George's Island, and join the Admiral. Columbine was on our lee-bow a mile, Portland on our weather-beam half a mile. In an hour and a half we were 1 mile on his weather-beam, Columbine 2 miles on our lee-quarter. We had to make a tack to weather the island; so had Portland. When rounding the island, blowing strong, Portland then 3 miles astern, sprung her fore-topmast, shortened sail, and bore up for the Admiral, who was running for Salamis. Columbine, trying to round the island to leeward, carried away her fore-yard, and bore up. Vernon went round the island, and was

the second ship in Salamis. No officer in the fleet ever saw the match of this before; nor would they believe it unless they had seen it; for there was not a ship there, but what Vernon had run one-third more during that day than she had. All our subsequent trials were as much in our favour. It is the opinion of every officer and man in the squadron that no ship in the world will sail equal to Vernon.

"By the packet that goes home now, I have given in six official reports to the Commander-in-Chief by his order; and the other Captains are ordered to give in written reports, all of which will go by the packet to the Admiralty. I have also sent Sir James Graham my six official reports; that he may be prepared to meet anything that may be going on in the House of Commons. As soon as these reports are at the Admiralty, he had better see the whole of them, and bring them before the House: for there is not such a ship in the world for *easiness, stability*, and *fast sailing*. This is a thing that I am sure of; and if any in the squadron were of a different opinion before this, they all agree now with what I have said above. I beg that either you or Sir James Graham will cause all these reports to be published.

"I remain, &c.,

"JNO. M'KERLIE."

"To Captain Symonds, R.N."

No. 38. *From the same.*

"H.M.S. Vernon, Malta, 2nd April, 1835.

"MY DEAR SIR JAMES GRAHAM,

"It affords me very great pleasure to give you good accounts of the Vernon, for I am sure you will be delighted when you read the six official reports herewith sent. They are copies of the reports that I was ordered to make out for the Commander-in-Chief, Sir J. Rowley, on different trials we had with different ships, and sometimes with the whole squadron.

"The sailing of this ship is far beyond anything that I anticipated; and as every officer and man in the fleet has witnessed it, they, to a man, say that there is not such another ship in the world. I am not only pleased with her sailing, but I am much pleased with her as a sea-boat; she is on every occasion remarkably easy. The reason why I send you these reports is because I know many others are going also (but all in our favour) by this packet. They will afford you a good opportunity of bringing the whole affair before the House of Commons, or

you may publish them, so as to shut the mouth of clamour for ever. If our Government will not build any more Vernons, the other powers of Europe and America will. I am well aware that deep-rooted prejudice is not easily removed; but I now consider Captain Symonds an injured man. I shall be glad to hear from you, and I will thank you to let Captain Symonds know how we are getting on.

"I remain, &c.,

"JNO. M'KERLIE."

"Sir J. Graham, Bart. &c. &c. &c."

No. 39. *From Mr. W. Bradshaw, Master, R.N.*

"H.M.S. Vernon, Malta, 6th April, 1835.

"DEAR SIR,

"Knowing you feel a lively interest in everything connected with the naval service, I thought you would like to know how Vernon behaved with the fleet in this quarter; and I do not think I can do better than give you extracts from the log on the several trials we have had.

"On the 9th of February, our first trial took place with the following ships,—Caledonia, Canopus, Thunderer, Edinburgh, Revenge, Malabar, Endymion, Tribune, and Childers sloop. At 8·40. A.M., made all possible sail, per signal, wind right aft, and started from our station the last ship in the starboard line, about 2 miles astern of the flag, and 1 mile astern of Thunderer: at noon, Caledonia 7 miles astern, Thunderer 4; the latter being a long way ahead of the rest of the squadron. At 4 P.M., shortened sail per signal. Thunderer 7 or 8 miles astern; or, beat her about 1 mile an hour.

"10th February. At 8·40 A.M., signal to try rate of sailing, steering E.S.E. with a fine quarterly breeze from S.W.; Thunderer 2 miles ahead, Vernon last ship, going from 10 to 12 knots. 4·20, signal to close Admiral: Thunderer and Canopus 7 or 8 miles astern, Caledonia 10, Revenge 8 or 9, Malabar 12, Edinburgh 12, Endymion 13, Tribune 9 or 10, Childers sloop, lower yards down.

"11th February. Off Cerigo, with a strong breeze close-hauled. Shortly after Admiral made signal to try rate of sailing, the Malabar carried away her bobstays, and signal was made to bear up and run to the northward of Cerigo; which we all very much regretted, for it was just the point of sailing the Vernon would have shown herself on, and convinced every one that she could do her work in a head sea and beat them all.

"12th February. The wind E.S.E., steering to N.E., close-hauled, going from 3 to 6 knots. 8·40, our signal to pass to

leeward of Endymion, the last ship in the line. Run to leeward of her at 9. Fleet in chase; in half an hour passed to windward of Endymion, and in one hour passed the Thunderer, the headmost ship of the weather line. At 4 P.M., signal to close Admiral, Childers 3 miles astern, Tribune 6, Endymion 8, Thunderer 9; the Admiral and the rest of the squadron indistinctly visible astern. The wind, during this trial, was light and wavering from S.E. to E.S.E. Anchored at Vourla on the 14th. — On our passage back had the following trials with Portland and one of the Vernon family, Columbine, — the Tribune and Childers left at Smyrna, the rest of the fleet as before:—

"9th March 8·40 A.M. Admiral made signal for frigates and sloops to close. 9·25, started; Portland half a mile on our weather beam, Columbine about the same distance on our lee beam, Endymion declined trying. Wind fresh from S. W., with a short sea on, we close-hauled, going from 9 to 10 knots, under single-reefed topsails, topgallant-sails, jib, and driver. At 10, crossed under the Portland's bows dead to windward of her; signal from the Admiral to pass to windward of St. George's Island, rounding it to the southward, and join him at Salamis Bay. 11·30, tacked, finding we could weather the island, then about 1½ mile dead to windward of Portland. The brig had tacked before, with the intention of passing round the leeward side of the island, finding Vernon dropped her. 12·15., Portland made signal, 'her fore-topmast was sprung,' and bore up to join the Admiral without going round St. George's. 12·30, rounded the island, and hauled up to the northward. Observed Columbine to leeward, with fore-yard gone, in the slings; shortened sail and spoke her; made sail again, standing to the northward. Observed Portland under all sail. 2·50, passed the Portland; at 4, passed the Admiral, Portland 2½ miles astern. Anchored at Salamis, the same time as Canopus, the headmost ship of the fleet, to the surprise of the fleet, notwithstanding we lost half an hour's run by not tacking sooner off St. George's Island; for when we tacked to go round it we had to keep away 1½ point from the wind. This would have been a proud day for Captain Symonds had he witnessed it, for the Portland is decidedly a clipper of her class.

"13th. Wind right aft, blowing fresh with a short sea on, and as much sail as we could carry. Topgallant-sails, single-reefed topsails, two fore lower studding-sails, steering S.S.E. for the south end of Cerigo. Wind N.N.W., Portland and Endymion on our starboard beam, bearing W.N.W.; the former half a mile, the latter 1 mile. Thunderer about 1 cable's length on our larboard beam: 9, started; 11·45, split both main-

topmast studding-sails. In all studding-sails; Thunderer carried away 1 topmast studding-sail boom, Portland 2, Endymion 1, Admiral 1. At 1·30, shortened sail per signal, and hove to: Portland and Endymion 5 miles astern, Thunderer 8 or 9, Admiral and squadron 5 or 6 leagues, going from 9 to 12 knots per hour during the time.

"14th. The signal was made for trial; but the wind fell so very light, not going more than 1 and 1½ knot, there was nothing done. At 4 P.M., Thunderer, 1 mile astern, and the Admiral and squadron 3½ miles; only run 7 miles from starting.

"15th. At 6·45, started close-hauled, with a moderate breeze from N. to W. going from 8½ to 9 knots per hour; Portland S. W. a quarter of a mile, Endymion S. W. ½ W. a quarter of a mile. At 11·30, the wind came all free, one point; all ships set topmast and topgallant-mast studding-sails. At 1·50 P. M., shortened sail and hove to, per signal: the foot of Portland's course just dipping in the horizon astern, Thunderer and Canopus hull down, Edinburgh lower yards down, Revenge and Malabar half topsails down, Caledonia topsail-yards just awash, Endymion foot of courses down. Thus, in seven hours did Vernon beat some of the finest ships in His Majesty's service; and generally speaking she beats the whole squadron at about the same rate that formerly some of our finest frigates used to beat a fleet of East Indiamen.

"16th. Wind W.N.W., fresh breezes and a short head sea on, we close-hauled, lying up N. by W., going 9 knots. 8·20 started; Endymion, W. ¾ N. quarter of a mile, Portland W. by S. half to three-quarters of a mile. In 20 minutes brought the Endymion in our wake, and in 40, the Portland, by crossing her bows; 11 A.M. Endymion 3 or 3½ miles on our lee beam, made signal of having 'sprung her bowsprit' and shortened sail. At 1·30, tacked per signal, and bore up to join the flag: Portland, E. ½ S. 3 miles, or about three-quarters of a mile dead to windward of her. Vernon behaved well and scarcely pitched at all, while Portland was dipping the weather clew of her foresail six feet in, and Vernon merely sprinkled a little spray between her fore and main rigging.

"17th. At 8·30 A.M., bore up per signal, and ran 7 miles to leeward of the Admiral, on his lee beam. At 10, flag W. by S. ½ S. 7 miles, Portland half a mile on her weather-beam. Started close hauled, going 5 and 6 knots, with a short head sea on; and it took us until 11 o'clock, before we had reefs out and sail properly set, it having been blowing fresh from the westward during the previous night. 12·30, passed close to windward of Portland, and 1·30 P.M., tacked and weathered, the Admiral

about 1½ mile; and at 2, tacked and took our station 1½ or 2 miles on his weather beam; Portland passed a long way to leeward of flag, and when in our station, she was 1½ mile to leeward of Vernon. This was a trial, to see which ship would get into her station first, on the weather beam of flag.

"18th. — At 9·20 A.M., signal for frigates to try rate of sailing and make Malta. The tower on Cape Passaro, N.W. 7 miles. Wind N.W. lying up S.W. by W., fresh breezes with a short sea on; Portland, S.E. ½ S. ¼ mile, going from 8 to 10 knots. At 11·55, observed Malta from the masthead W.S.W.; made the signal to Admiral. Noon, Portland E. by. N. ½ N. 5 miles; flag, 8 miles. At 3·20, tacked close to the entrance of Malta harbour, and up courses — Portland, her water-line dipped about half up to her ports, 8 or 9 miles. One of the *liners* nearly out of sight, the rest of the squadron half-topsails down. At 4·40, the Portland tacked near the East or leewardmost point of Malta. During the whole of these trials, Vernon behaved well, and was as stiff as a crutch — inclination never more than from 4° to 6°; she never strained a rope-yarn, while others were springing topmasts, bowsprits, &c. She pitches easy and sprinkles us a little from her chesstree to main rigging.

"So much for our Naval Surveyor, who deserves the thanks of his country and every naval officer, for having had courage and strength of mind to break through old, beaten rules, and produce *a perfect man-of-war*, that is the admiration of all foreigners. It shows that intuitive genius has far outstripped our scientific shipbuilders, and left them half a century astern. The distances stated in the several trials are under the mark, for we always allowed Portland and Endymion to start from our weather beam. The former beats the fleet at about the same rate Vernon beats her; and I am surprised, after all that has been said about this ship's pitching, to find her so very easy, for she is by far, from what I have seen of her, as yet, the easiest ship I ever sailed in.

"Our stay at Malta is likely to be until the early part of May. The squadron is now refitting, and it is supposed we go to Athens early in June, to attend the coronation of King Otho. There is nothing doing in this part of the world at present, except running between this and Vourla Bay; and most of the fleet expect the squadron will be shortly reduced to a line-of-battle ship, frigates, and sloops.

"Allow me to remain, with respect, my dear Sir,

"Your obliged and faithful servant,

"W. BRADSHAW."

"Captain J. W. Deans Dundas, R. N." *

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* Now Admiral Sir J. W. D. Dundas.

No. 40. *From an Officer of the Vernon.*

"H.M.S. Vernon, Malta, April 6th, 1835.

"You asked me to give you a true and impartial account of the Vernon. I do it free from all prejudice or bias. I think I had better tell you what we have done since we left the Downs. The first time we started, we had a very strong beating wind with a head sea; we had beat up past Dungeness, when, it coming on to blow a gale, and the passage narrow between this and the French coast, the Captain determined to bear up for the Downs. We remained here another day, when, it having in some degree moderated, we again got under weigh; we had a very strong beating wind, with a head sea, for three days. Whatever doubts may have been entertained before this of her qualities, when blowing hard with a head sea, (from the false assertions made in some of the papers, by some prejudiced or interested people,) are now entirely done away with. They say she is a very wet and uneasy ship; I say she is not; she wets her forecastle a little when it blows fresh, I allow; but what ships, especially fast-sailing ships, do not? then, as for her being uneasy, she certainly pitches rather deep, but so very easy that one can scarcely feel it.

"After we got clear of the Channel, we had nothing but light contrary winds most of the way to Malta, in consequence of which, we were from Dec. 3rd to Jan. 3rd going out. When we arrived at Malta, we found the fleet was at Vourla; we were to have sailed to join them, but the Childers having arrived, with the news of the fleet being on their passage down, we remained here for them; they arrived on the 18th January, after they received pratique. We were visited by most of the officers, and much admired. The Thunderer beat the whole of the fleet coming down, (Columbine excepted,) and, from what they had read of the Vernon, expected to treat her in the same manner. Although we said but little, we were very sanguine of success, and wished much for an early opportunity of deciding it.

"It took place sooner than we expected, by the arrival of the Tribune, from Smyrna, with news that the Sultan had beheaded about 250 of his loving subjects, and that our ambassador requested the fleet's presence at Vourla as soon as possible; accordingly all the fleet sailed on the 8th February. On the 9th, about 9 A M., the signal was made, 'Try rate of sailing,' the wind nearly aft, and a 7 knot breeze; in one hour, from being the sternmost ship of the line, we were ahead of the whole of them, and, in seven hours' run, we beat the Caledonia 13 miles. But the next day we beat them more; it was a good fresh breeze with the wind abeam, or a little before it. After a run of seven

hours and twenty minutes, we beat the Caledonia 15 miles, Thunderer 8, Canopus 8, Revenge 10½, Malabar 13½, Endymion 13, Tribune 10½, Childers 16, Edinburgh 12½ miles: besides which, we are the stiffest, and can outcarry the whole of them. This I think is as much as can be expected from one of Symond's '*failures.*'

"We had a trial on a wind the next day, but it was a very light wind; we forereached and weathered on the whole of them. In light winds, close hauled, the Childers is next to the Vernon, but unfortunately the Columbine was not with us, having been sent on before with despatches. When we arrived at Vourla, the Admiral and every one acknowledged our superiority. As everything remained quiet at Constantinople, the fleet again weighed from Vourla Bay,—consisting of the Caledonia, Thunderer, Edinburgh, Canopus, Revenge, Malabar, Vernon, Endymion, Portland, Columbine, and Medea.

"On the 9th, at nine o'clock, we were ordered to close with the Portland and Columbine. At 2·20, the Portland being half a mile in the wind's eye of us, and Columbine half a mile on our lee beam, the signal was made to try rate of sailing, and beat to windward round St. George's Island, (which was about 15 miles to windward,) and then close with the Admiral. In 40 minutes we crossed the Portland's bows, our taffrail passing within 20 yards of her flying jib-boom. At 11·30, when we tacked to pass to windward of St. George's Island, we bore one mile and a quarter, right in the wind's eye of her; we could but just carry single-reefed topsails and top-gallant sails, and we were going, a great part of the time, 10¾ miles an hour, within five points of the wind. At ten minutes before 12, the Admiral bore up, and made signal for the fleet to anchor in the Bay of Salamis as soon as convenient. At 12·10, P.M. the Portland made signal that she had sprung her fore-topmast, and bore up; the Columbine having carried her fore-yard away, bore up also. At 12·30, we bore up round St. George's Island, having passed to windward of it; we experienced some very heavy squalls, so that I am not surprised at Columbine carrying her fore-yard away, or Portland springing her fore-topmast. Although when we bore up, most of the ships were 6, 8, and 10 miles ahead, we passed the whole of them, and anchored the second ship in Salamis Bay, two minutes after the Canopus.

"The Portland sails remarkably well, for one of the old class of ships; in fact, if none of Captain Symonds's ships were up here, she would be the crack ship of the station. In strong breezes, we beat the Columbine, but we have had no opportunity to try her in light winds, neither shall we for some time,

for she is to go to Malta without the fleet. Symonds's '*Bathing Machines*' never proved their superiority in outcarrying other ships so much as when running into Salamis; a very heavy squall came on, which obliged all the other ships to take in their topgallant sails, and most of them to lower their topsails and reef them, while the Vernon and Columbine carried single-reefed topsails and top-gallant sails right through it.

"Now for our stowage, which is a very great qualification in a man-of-war; we stow six months' provisions under hatches easily, nine months' rum in the spirit room, 800 bags of bread in the bread room, and 253 tons of water. Can the opponents of the Surveyor name any other frigate in the service that can do this? No, they cannot; and yet with all these well-known facts, they have the audacity to assert, week after week, that we are a total failure, without being able to bring forward a single fact to substantiate it. It may be that Captain Symonds's ships cost more in building than other ships of the same class, because they are so much larger; but do not the comfort and health of the officers and ship's company counterbalance this; for it stands to reason, the less people are crowded in a ship, the more comfortable and healthy they must be.

"We sailed from Salamis at 1 A.M. on the 13th, for Malta, having received pratique the day previous; there were only six line-of-battle ships, and Vernon, Portland, and Endymion; after we all got out of the Bay, the signal was made, 'Try rate of sailing with Thunderer, Portland and Endymion;' a strong breeze right aft; but in consequence of trimming ship, in hopes of sailing better, we only beat, in a four hours' run, the Portland and Endymion 3 miles, and Thunderer 5 miles.

"On the 15th, at 6·45 A.M., a general signal was made, 'Try rate of sailing;' we were then abreast of the Admiral, with Endymion a little on the bow, Portland on the quarter, and all the line-of-battle ships in close order, when we started: it was a fine day, the wind before the beam and a 7 or 8 knot breeze for us. After a run of seven hours, the signal was made to 'heave to;' we were then about 12 miles ahead of the Portland, Endymion, Thunderer, and Canopus, the remainder of the squadron were scarcely visible astern. If we had been allowed to run on half an hour longer, we should have been out of signal distance, for it was with difficulty we made it out then, although all the headmost ships repeated it. It is impossible to say accurately, how much we beat each ship, but I can say how much each ship was below the horizon, after a run of seven hours, as seen from our taffrail: Caledonia, head of topsails just visible; Malabar, half-topsails down; Portland, rather more than hull

down; Endymion, foot of courses a-wash; Thunderer, hull down; Revenge, lower yards down; Canopus, hull down; and Edinburgh, lower yards down. Had I not seen this myself, I should have thought it almost impossible for one ship, in such a steady breeze, to beat a whole fast-sailing squadron such an immense distance, in so short a time.

"I can account for our beating them so much more to-day than formerly. Before this, we have had guns aft from forward, and the watch under the half deck; but to day everything remained in its proper place, as Captain Symonds intended it should, when he gave the trim of this ship. I must here bear witness to the fair and honourable manner in which the Admiral has acted in the late trials; to-day he made all the ships heave-to together, and sent the Revenge ahead to measure the distance between each ship; and all the Captains are to send their written opinions of the trials to the Admiral. Although we only had a seven hours' run, we were lying-to more than four hours before the Admiral came up with us; so that it took the greater part of the fleet eleven hours to run over the same ground that we did in seven hours.

"On the 16th of March, at 8·20 A.M. the signal was made for frigates 'to try rate of sailing.' We were on a wind, with a fresh breeze from the westward, the Endymion being, when we started, a quarter of a mile on the weather bow, and Portland three quarters of a mile on the weather beam; Endymion and Vernon had single-reefed topsails and topgallant sails; Portland all reefs out of her topsails and topgallant sails. At 8·50, the Endymion was a cable's length astern. At 9, Portland was a cable's length in our wake. At 11, Endymion shortened sail, and made signal that she had sprung her bowsprit; she was then 3½ miles on our lee beam; at the same time the Portland took a reef in her topsails. At 1·20, we tacked, per signal, and passed 3¾ miles to windward of Portland, and then bore up, to close the Admiral; so, by this, in five hours we beat one of our fastest sailing frigates 4¾ miles dead to windward. After sunset it came on to blow very fresh, and a head sea getting up, we treble-reefed the topsails. Portland and Vernon kept abreast of each other all night, on the weather beam of the Admiral, but we spared the line-of-battle ships courses, and Portland foresail. . . . . .

"The Admiral expresses himself highly pleased with the Vernon, and says he could not have believed, unless he had seen it himself, that one man could build ships so far superior to all others in every point, as Captain Symonds's ships evidently are to all the old class of vessels. All the captains have sent in their written opinions of the Vernon, which, with the Admiral's, will

be forwarded to the Admiralty. Enough of the ship, for I am afraid that I am getting tiresome; the reason that I have ventured to be so very explicit is, that I know you take a deep interest in Vernon, owing to so many contradictory reports being spread about her. I like this station very much, as you always said I should; and this is the ship I would sooner belong to than any other in the service, although she is such a 'dangerous' vessel. You must have perceived that I am become a regular Symondian; so must every unprejudiced person be that has served in any of his ships. I should like you to take a cruise with us, you would be quite delighted with us; the only objection is, that it spoils a person for any other ship."

No. 41. *From the Right Hon. Sir James Graham, Bart., M. P.*

"House of Commons, 4th April, 1835.

"My dear Sir,

"I have the greatest pleasure in sending to you the two enclosed letters, one from Captain M'Kerlie*, the other from the son of Admiral Napier. They can hardly gratify you more than me, and they prove beyond a doubt the real merits of Vernon. Have the kindness to return them to me before Monday; since, if I have an opportunity on that day, in the Navy Estimates, I will read them to the House. You may take a copy of M'Kerlie's letter if you please.

"Yours very truly,

"J. R. G. Graham."

"Captain Symonds, R. N."

[*Enclosure.*] *Extract of a letter from Lieutenant C. G. E. Napier* †, *H.M.S. Vernon.*

"The Vernon, that you must see so much about in the papers, has acquitted herself in glorious style: I never thought shipbuilding could be brought to such perfection. We can fight either side, let it blow as hard as it likes; and as to sailing we astonish the whole fleet, which we beat in prime style, always leaving the fastest of them 6 or 7 miles astern in six hours. The Caledonia that we thought sailed very fairly when with the fleet, we run out of sight in seven hours on any point."

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* Letter of 17th February.

† Afterwards Captain of the Avenger, lost on the Sorelle Rocks, 1847.

[*Enclosure.*] *From Captain M'Kerlie, R. N.*

"H. M. S. Vernon, Malta, 8th April, 1835.

"My dear Sir James Graham,

"Yesterday when at the Admiral's Office, the Secretary, Mr. Triphook, was good enough to show me Sir Josias Rowley's official letter that goes home to the Admiralty, with the reports of the different Captains of the squadron respecting the comparative sailing of the Vernon with the other ships that were selected to make trials with her. I can with truth assure you that the Admiral, who at first rather appeared to think there was nothing very extraordinary in the sailing of the Vernon, now that he has seen her in every situation on her trials, is become a perfect convert, and thinks no ship in the Navy will or can sail with her.

"Fourteen reports go with this packet, all I believe very favourable, but them I did not see, only I saw their *number*. This I consider you ought to know, so that none of them should be withheld. I hope that Captain Symonds may get hold of them, and publish them to the world, so that every impartial man may see how he and his ships have been calumniated by a set of slanderers, who have neither honour nor principle in them. I shall, as far as lies in my power, while I command the Vernon, give her fair play, and by so doing I will fear nothing afloat, either here or elsewhere. I do not know what Sir G. Cockburn will do or say when he hears our different reports; I trust you will keep him in check, for I know what his feelings are with respect to Symonds and his ships. However, I trust he will become a convert also, and see the *evil* of his former ways, and repent.

"I remain, my dear Sir James,

"Yours very truly,

"John M'Kerlie."

"Sir J. Graham, Bart., &c. &c. &c."

No. 42. *From Lieutenant E. Wilson, R. N.*

"H. M. S. Vernon, Gulf of Kalamata*, 28th August, 1835.

"My dear Sir,

"I have very little to say, but as we have had another very good trial on a wind with Endymion, Childers, and Sapphire, I concluded you would like to hear the result of it. It took place on the 11th August, in the open sea, about midway between

* At the head of the Gulf of Koron, in the Morea.

Malta and Corfu; the fleet being bound for the latter port. At nine, the signal was made for the before-mentioned ships to close round the Admiral; and at 9·30 the trial commenced, with a fine steady topgallant breeze and all reefs out; the rest of the fleet carrying the same sail and doing the best they could. As this was the only steady breeze we have had since leaving Malta this summer, and having again bent our new sails, we were very anxious, as you may suppose, to make a display, especially as some good-natured folks had reported that we had lost our sailing.

"At starting, Endymion was on our weather beam a quarter of a mile; Sapphire lee beam close to; and Childers broad on the weather quarter half a mile. In the short space of half an hour, Endymion was in our wake three quarters of a mile; Childers nearly the same; and Sapphire dead to leeward nearly 1 mile. Thus proving, beyond a doubt, that with good sails and a steady breeze, however much some of the ships might be improved, that there was no foundation for the idle reports as to the Vernon having lost her sailing. The breeze continued very steady, and our average rate of sailing about 8 knots an hour.

"At noon, signal was made, to tack together—Endymion right astern, 5 or 6 miles; Childers rather to leeward of our wake, 6 or 7 miles; and Sapphire, 4 or 5 miles dead to leeward. The fleet in the same direction as Sapphire 6 or 7 miles. At 1, we tacked together, which brought us nearly into the same positions again, but we had weathered, as well as fore-reached on, Endymion and Childers, which brought them both to leeward of our wake. At 4·30 the signal was made to close, when the Endymion was a point on the lee quarter 9 or 10 miles, Childers to leeward of her 10 or 11 miles, and Sapphire about 9 miles dead to leeward. The fleet, of which the Caledonian was the best sailer, and Thunderer next, were at least 12 or 13 miles on the lee beam; and when we had joined, which we did at 6·20, the Endymion was right astern and Childers and Sapphire nearly so 14 or 16 miles; indeed we could hardly see them at sunset, and neither could reach their stations until 2 or 3 in the morning. The Admiral and the friends of the Vernon were highly delighted with this trial; indeed many think we made a greater display on this than on any other occasion.

"I am, my dear Sir, &c.,

"EDMUND WILSON."

"Sir W. Symonds."

No. 43. *From the Same.*

"H. M. S. Vernon, at sea, 4th December, 1835.

"MY DEAR SIR,

"In my last I told you that we were preparing for a

series of trials with Barham; and the accounts I have now to send you, will, I fear, be less satisfactory than our former ones, with Portland, Endymion, &c. However you may rely on them for truth and impartiality. We have had two cruises and the date of this is at the close of the latter, as we return to Malta on the 6th to give the Admiral an opportunity of transmitting the result to England. I therefore commence from the day we left Malta on our first trial cruise.

"Tuesday, November 9th, at daylight, slipped the moorings, and proceeded to sea in company with Revenge, Barham, and Columbine. At 9 A. M., made all possible sail before the wind; rate of sailing, per log, 1½ knots. Towards noon the wind freshened a little, and we averaged for the remainder of the trial 4 or 5 knots. At 5 P. M., shortened sail, when the Barham had gained on Vernon 1½ miles; Columbine ahead of Vernon a quarter of a mile: length of trial 8 hours.

"2nd trial, Thursday 12th, right before wind: light breeze at starting, but increased to a 9-knot breeze. At noon, Barham, Columbine, Vernon, nearly equal. At 5, shortened sail, when Barham gained on Vernon half a mile in a run of 76 miles; Columbine and Vernon equal: length of trial 9 hours.

"3rd trial, on Friday 13th, by the wind. Started at 2 P. M., wind light and variable, all three nearly equal; but as the wind increased Vernon and Columbine showed a decided superiority. Trial ended at daylight, when Vernon had weathered on Barham 5 or 6 miles; Columbine on Vernon 10 miles, on Barham 15 miles.

"4th trial, on Saturday 14th, by the wind, blowing fresh, and heavy sea. Housed the main deck guns, which eased the ship and made her more weatherly. Shortly after the trial commenced, Columbine, to our great regret, sprung her mainmast and bore up; at 10, Barham tacked and passed a quarter of a mile to leeward of Vernon. Wind increasing, with a short heavy cross swell. Stood up well to our canvas, only heeling 6°, Barham 8½°. At 10·50, tacked together, when we *passed three quarters of a mile* to windward of Barham; at 11·30, tacked, Barham on lee bow 2 or 3 miles; 1 P. M., she was 6 miles 2 points on Vernon's lee beam, when the wind shifted, so as to bring Barham nearly ahead. Soon after the ships tacked together, and the recall was made. On reference to a diagram, showing the position of the two ships when the shift of wind occurred, it appears Barham would have passed to leeward of Vernon 2¾ miles, in a trial of 5 hours, blowing a hard breeze, with a very heavy head sea.

"5th trial, on Sunday 16th, by the wind, which was light with a heavy head sea. At noon, crossed the Barham's bows on the same tack from the leeward. At 1 P. M., both ships tacked

together, Vernon still weathering on Barham. At 3·40 tacked again; 4·30 the trial ended. Vernon weathered on Barham half a mile.

"6th trial, on Monday 16th, before the wind, which scarcely filled the sails. Trial ended at 4·30 P. M., when Barham had gained on Vernon three quarters of a mile.

"7th trial, on Tuesday 17th, by the wind, a fine stiff topgallant breeze. Trial ended at 4 P. M., when Vernon had weathered on Barham 3 miles: length of trial, 8½ hours. The guns were not housed. Wednesday 18th, squally and unsettled weather, with shifts of wind, so that no trial took place. Thursday 19th, arrived off the harbour, and hove to. Friday 20th, returned into port.

"Thus ends the first cruise, which clearly proves that, on a wind, the Vernon has a decided superiority; and as we had no trials off the wind, on a fresh breeze, the little advantage which the Barham derived in light wind in that point of sailing is hardly worth noticing. I need scarcely observe to you, that after our former success, we feel a little disappointed at the result of this trial; and more particularly so, as we did not beat the Revenge by one half the distance we did formerly.

"Yours very truly,

"EDMUND WILSON."

"Sir W. Symonds."

No. 44. *From the Same.*

"H. M. S. Vernon, Malta, 14th December, 1835.

"MY DEAR SIR,

"Our second trial cruise ended this day, and we have returned into port. Since the date of my last letter, we have had a few more trials, but I regret to say, very unsatisfactory ones. On one occasion only, under double-reefed topsails and topgallant sails, and then, at the end of four hours, from having the Barham 2 miles on the lee beam, we broke off four points. But notwithstanding so great a shift of wind in her favour, we passed half a mile in the wind's eye of Barham.

"Shortly after, we discovered the maintopsail-yard to be sprung, and the trial ended. Indeed, during the whole of this cruise we have not had one good day's trial; the wind invariably shifting, sometimes three or four points. We have had no opportunity of trying under low sail; but it was evident to every one that, the more the wind and sea increased the more Vernon showed a decided superiority; and I believe it is the opinion of most people, that when the Barham can carry royals, she may be considered a match for the Vernon on a wind, and rather superior going large. Under single-reefed topsails, topgallant

sails, courses, jib, and driver, with the wind a-beam, going 11 knots, we gained on Barham half a mile in 2 hours, and on the Revenge 5 miles. The main deck guns of the Vernon were housed on this occasion, and on some others. With a heavy cross swell she was remarkably easy and dry. The Barham appears very laboursome, and pitches dreadfully. On every occasion Vernon had a decided advantage in a head sea. Thus far I think her character may be fairly established as a foul-weather ship, and as her greatest enemies allow that she sails remarkably fast in light breezes and smooth water, every one whose opinion is worth having ought to be perfectly satisfied.

"Every thing has been done that we could think of; still I am of opinion she does not sail so well as she formerly did in light winds. Her copper, I dare say, is foul by this time. The Barham has taken a leaf from our book, and can now brace her yards up quite as sharp. Another great advantage on her side, is that the management of the ship, trimming the sails, &c., is conducted *entirely by her Captain;* whereas with us, each officer of the watch does as he pleases; and you well know how very few there are who have any idea of trimming a sail or steering a ship. The Vernon would make a fine double-banked frigate, and the boats might easily be stowed in midships. Of course she would then have a proportional number of men, and her sails might then be increased to great advantage. She would be more than a match for any 74, and nothing could come near her in the lightest breeze; for I can tell you, even in this weather, it was a source of great annoyance to see Barham even a ship's length before our beam.

"The Captain and every one wishes for a trial with Barham off Scilly or thereabouts; and if the Admiralty are not satisfied, I dare say it will take place. The constant shifts of wind and calms we have experienced, during twenty-eight days' trial, are vexatious in the extreme, and really quite dampen one's zeal.

"I send this per Alban, which vessel is ordered to England. Lieutenant Hill, formerly our junior, commands her; and if you should see him, will be able to give good accounts of all of us.

"I am, my dear Sir, &c.

"EDMUND WILSON."

"Sir William Symonds."

No. 45. *From Mr. M. Bradshaw, Master, R.N.*

"H.M.S. Vernon, Malta, 15th December, 1835.

"MY DEAR SIR,

"We arrived yesterday after a fortnight's trial cruise with Barham, under the directions of Sir William Elliott, our

Commander, in the Revenge, and under all sail when we could carry royals. On a wind Barham had a slight advantage, and the same off the wind, with all sail set, which I attribute to the Vernon's masts having been reduced at Sheerness to the same length as Barham's. She, not having so much as Vernon by 5 or 6 feet, has, consequently, more drop in her courses than we, and I rather suspect more hoist in all her sails. Height of Barham's truck to water's edge, 194 feet; Vernon 186; no spare wood above royal-yards in either ship; the trucks fitting close down to the royal rigging. They completely clipped Vernon's wings for light breezes, when they reduced the masts and yards; we lost two cloths out of every sail in the ship; besides, all our studding sails are to the Establishment. Barham has seven more cloths in her lower studding sail than we have, and all her sails appear much larger than ours. In short, Vernon looks jury-rigged to her. In every way in a fresh breeze, both in and off the wind, without steering sails, Vernon beats her; but during this last trial, by some unaccountable cause, Vernon has not sailed so well as she did before, and we are all at a loss to find out the cause.

"Our first trial of this cruise commenced 28th November. At 11·45., started with the wind from S.W., steering S.E., going 7 knots, under royals and steering sails, Barham bearing S. by E. ½ E. 5 cables; at 1 P.M. Barham S. 7 cables; at 2, Barham S.S.E. ½ E. 9 cables. Here the wind fell lighter, and Barham began to start a-head; so that at 4·30, when the day's trial closed, she bore S.E. ¼ S. 1¼ mile, and gained only 2¼ points a-head from starting, going latterly only 5 knots.

"29th, at 1·25 P.M., wind N.W. and light, going 7 knots; started on a wind, both ships under the same sail, Barham N. ½ W., 3 cables. At 1·30 tacked. At 3 P.M., Barham N. by E. ½ E. 1 mile; at 4, Barham N.N.E. ½ E. 2 miles and 4 cables; at 4·45, signal for Barham to tack; and at 5, she passed 5 cables' length to windward of us, gaining about 2 cables' length on us in this day's trial, which we lost in stays the first time by hauling too soon, and keeping too dead a luff after the Barham tacked.

"1st December, the wind light, from S.S.E. At 6·50 A.M., signal to take a station 2 miles north of Revenge. 7·53 A.M., started both ships under the same sail; lying up S.W. by S., Barham N.E. by E. 2 cables; at 10·10, tacked together, lying up on this tack E. ½ S., coming up a point, between this and 11 o'clock. At noon, Barham S. by E. ½ E. 6 cables; at 3, observed the Revenge in stays, and shortly after the Barham tacked; at 3·45, Barham S.S.E. 9 cables to windward of us; Revenge N.N.W. 1 mile and 1 cable to leeward. This finished the day's trial.

"2nd December. — At 8 A.M., started to try rate of sailing, on course N. by W. (wind light and coming in flaws, E.S.E.), going 4 and 5 knots under all sail possible; Barham W. by S. ½ S. 3 cables, Revenge N. by W. 1 mile. At 4, Barham N. by W. ½ W. 2½ miles. Finished here. It appears when this day's trial was over, Barham had been trimmed so much by the stern, that it took her one hour and a half to come to the wind with her jib down.

"3rd December. — At 8·50, started on a wind, under all plain sail, lying up S.W. with the wind S.S.E.; Barham N.E. ¾ E. 2 cables; Revenge E. by S. 2 miles and 4 cables. At 9·30 came up to S.W. by S.; 9·40 to S.S.W., which brought Barham on our weather quarter: 10, came up to S. by W.; here she tried to pass to windward of us, but failed, and dropped under our stern to leeward. Here a little bit of jockeyship took place, by Barham backing her mizen top-sail for 1 minute 2 seconds and a half, and then running to leeward. At 12, Barham W.S.W. 3 cables; tacked together, lying up N.E. by E. ½ E. At 1·40, ditto to E. by N.; at 2 P.M. Barham W. ½ N. 5 cables. From 2 to 3, our head from E. by N. off to N.E. by E. ½ E.; at 4, Barham N.N.E. 1 mile and 4 cables, Revenge S.W. 3 miles. At 4·44, tacked together per signal; when round, lying up S. and shortly after came up to S.S.E. At 4·51, Revenge dead to leeward 7 cables; at 5·07, our signal to tack; at 5·20, the Barham tacked close under our lee bow. This was rather too good; at first when signal was made, tacked together; Revenge continued on the starboard tack, Barham bearing from us, N.N.E. 2¼ miles, lying up E.N.E.; this was an advantage to her, and of course brought her on our weather quarter, it being impossible for Revenge to judge which ship had gained most to windward. Barham's distance would appear more, from Revenge, than Vernon's, and we, having to tack with Barham, naturally kept away, she profiting by our loss; but Barham being the ship that forereached most, ought to have tacked first, and tried to weather Vernon. This would have shown the distance fairly gained by either ship.

"4th December. — 7·50, commenced trial by taking up station 2 miles to the N.W. of Revenge. 8·20, started on the starboard tack, wind E. by S., lying up N. E.; Barham W. by N. 4 cables. From 10 to 10·20, signal was made, 'Tack together;' Barham N. ½ E. 1 mile 1 cable, Revenge S.E. by S. 1 mile 4 cables; this brought Barham on our weather quarter, the wind at this time falling light and variable, lying up S. by E. ½ E., S.S.E., and S. by E. At 11m., Barham N. ¾ E. 8 cables. Here the wind came in flaws. Observed, when we fell off,

Barham did not appear to feel it, and at times was lying up full two points higher than we; 11·20, came up to S.E. This brought Barham nearly on our beam; made signal, 'Wind shifted in favour of Barham 3 points since we tacked.' At 11·55, Revenge made signal, 'Show bearings and distance;' Barham N.E. 4½ cables, Revenge S. by E. ¼ E. 2 miles. From 12 to 1 P.M., head S. ½ W., S. by E. At 2, Barham S. ¾ W. 1 mile and 1 cable; Revenge S.S.W. ¼ W. 3 miles and 1 cable. From 2 to 3, head from S. to S. by E.; at 3·30, signal for Barham to tack, and at 3·40 she crossed our bows 3 cables. Now I would ask any impartial man, which ship deserved the palm this day? Vernon laboured under every disadvantage by shifts of wind; not one but was against her.

"5th December. — At 1 P.M., Barham S.W. by S. 2 cables; Revenge S.E. by S. 1 mile, lying up N.E. by E. ¼ E.; wind light, S.E. by E. At 2·30, the breeze decreasing, Barham began to forereach directly; at 3, Barham S.W. by S., coming fast upon our weather quarter; at 4·45, signal for Barham to tack, when she passed a mile to windward of us. Here the wind light and variable throughout.

"6th December. — At 7·25, signal to close Revenge; 7·40, bore up to take station 2 miles W. by N. of her. 8·20, Revenge E. by S. 2 miles; Barham N. by W. ½ W. 6 cables, lying up S. From 8·20, fell off half a point, and at 10·20 broke off to S. by W. ½ W. This change much in favour of Barham, she bearing at this time W. by S. At 11, Barham W. by S. 2 miles and 8 cables, Revenge N.E. ½ E. 3 miles 8 cables; tacked together with Barham, lying up E. by N. 11·25, broke off E.N.E.; Revenge passed about a cable's length to leeward of us. At 3, Barham S.W. 1½ mile, Revenge W. by S. ¾ S. 5 or 6 miles; at 3·50, our signal to tack; at 4·55, Barham passed close under our bows.

"7th December. — 8·30 commenced trying rate of sailing; Barham N.W. by N. coming up with freshway, our mizen topsail aback; at 9, Barham W. by N. 4 cables, Revenge E. ½ N. 3 miles and 6 cables: at 10·10 tacked; when round, lying up E. At 10·30 Revenge passed on opposite tacks, dead to leeward of us, 1 mile and 1 cable; at 10 55 tacked, Barham W. by N. 1 mile and 4 cables; when round on larboard tack, lying up S.W., and at 11·10, broke off S.W. by W. At 11·20, came up again S.W.; at 12, Barham W. ¾ N. 1 mile and 5 cables, Revenge W.W. by W. ½ W. 3 miles and 8 cables. From 12 to 12·30, S.W. by W.; broke off to W.S.W. At 1, Barham W. by N. 1 mile 7 cables; Revenge N. by E. ½ E., 2 miles and 7 cables; broke off to W. by S. Made signal, 'Wind had shifted

against us 3 points,' when the signal was made for Barham to tack; and at 1·15, she passed 3 cables length to leeward of us. Our main topsail yard being badly sprung, made signal to that effect, when trial of sailing was annulled.

"8th December. — Started at 9·35 A.M., Barham N. by W. 4 cables, Revenge W. by N. 2 miles and 1 cable, lying up S. on the starboard tack; wind light and variable. Signal for ships to wear together per signal; wore four or five times during the trial; from the time the helm was put up until she was close to the wind on opposite tack, 5 minutes. At 2·26, our last time of wearing, Barham bore W. by N. ¾ N. 1 mile and 1 cable; our head from N.W. by N. to N.W. Here Barham commenced her old tricks, by keeping free to forereach as much as possible before the recall was made, and at 3·39, when we finished, she bore N.W. 1½ mile.

"9th December. — At 8·50, signal, 'Prepare to try rate of sailing on course N.E.;' wind nearly aft, with larboard lower, and fore and main topmast and topgallant studding sails set. At 9·20, started, Barham S.E. ½ E. 1 mile 2 cables, Revenge, N.N.W. 1 mile and 1 cable; at 11, Barham S.S.E. ¾ E., Revenge N.W. by W. 1 mile and 4 cables. Here the wind came nearly aft, and Barham began to gain on us; and at 4·37 the trial closed, Barham E.S.E. 1 mile and 4 cables, Revenge S.W. ½ W. 3 miles.

"10th December. — At 8·30, signal 'Prepare to try rate of sailing and take station E.N.E. from Revenge 2 miles.' At 9·15 Revenge W. by S. 2 miles and 1 cable, Barham N.W. by N. 5 cables, lying up S.S.E. ½ E. 9·53; wind variable, came up to S. by E.; at 10 to S.; at 10·05 S. by W., Barham being N.W. ½ W. 3 cables; at 10·10 came up to S.S.W.; made signal, 'Wind had favoured Barham 2½ points.' At 10·40 out first reefs; broke off to S. by W.; at 11 to S. and then to S. by E.; 11·12 to S.S.E., and shortly after to S.E. by E. It then fell calm, when recall was made.

"11th December. —8·25, signal, 'Try rate of sailing under treble-reefed topsails;' wind fresh from the W.N.W., with a short head sea on. Barham E. by N. ½ N. 5 cables; Revenge, N.W. ½ W., 3 miles, lying up S.W. ½ W. At 9·25 made signal, 'We did not feel that low sail;' answered, 'Make sail without risk to spars.' At 9·30, began to make sail by shaking out reefs, set topgallant sails, jib, and out reefs of driver; ship under double-reefed top and mizen top-sail, single-reefed main, jib, driver, fore and main topgallant sail. At 10·15, tacked per signal, lying up; when round, N. ½ W.; at 10·40 the Revenge passed to windward of us half a mile; at 11, signal 'Prepare to tack together,'

Barham S. by W. 1 mile and 4 cables; 11·05, tacked; at 11·10, Barham S. ½ W. 1 mile 4 cables, lying up on starboard tack S.W. and S.W. ½ W.; at 12, Barham S. ¾ W. 2 miles, 2 cables, when she tacked and passed to leeward of us 1 mile. At 2·20, signal to 'Close Revenge, and prepare to try rate of sailing without steering sails;' ship under topgallant sails, courses, jib, and driver, with single-reefed topsails, on course N.N.E.; wind W.N.W., Barham S.E. ¾ E. 5 cables, Revenge S.E. by S. 7 cables. At 4·20 this trial closed, Barham bearing S.E. by S. 1 mile, Revenge S.S.W. 5 miles, going 10 knots.

"This clearly shows, that in a breeze, either on or off the wind, Barham has no chance; and all the Commander-in-chief has to do, is just to order Barham's sails on board of Vernon, and ours on board of Barham, and I feel convinced we should beat her more in light winds than she does us now. I will put one simple question to any sailor: If two ships are trying rate of sailing, ought they not either to tack every hour, or two hours, if there is no fixed point for them to work for? If in chase, I meet a ship that forereached on me, directly she got on my lee beam, of course I would tack immediately; for if she once got before that point, a trifling shift of wind would enable her to cross me. At all events, in this instance, the tacking should have been at equal intervals of time; for if the most weatherly ship stands on her best tack only one hour, and then goes about, it brings her opponent on her weather quarter; and if she can forereach, although very leewardly, she must gain the day if kept on her favourite tack two or three hours to the other's one, for she can afford to keep a point free, while the other is close-hauled.

"I do not mean, for a moment, to cast the slightest reflection on any one, for I feel convinced Sir W. Elliott is a very fair man; but it is impossible to see what a ship is capable of doing in chase, unless one is on board of her; and I would stake my life, if Barham was placed any short distance to leeward of Vernon, and both ships do their best, the one to get away and the other to close her, that the Vernon at the end of the day would be a long way to windward of her. Notwithstanding her present advantage, in spreading more canvas than Vernon, she would never come near her. But reverse the thing, and place Vernon to leeward; a very different result would take place before the day had finished. And again, if the two ships were on a lee shore, Vernon would crawl off like a cutter, and the Barham, in all human probability, become a wreck. In a head sea she is sluggish in stays, for with topgallant sails set, and single-reefed topsails and head sea on, she missed and wore,

Vernon going round in 2½ minutes. In fact, the Vernon works like a cutter. We have never let go an anchor in Malta harbour since we have been on the station, now a year; but always picked up her buoy; which says something for her being handy. Our berth is the outer moorings in Dockyard Creek, which we picked up twice, without having to lay out a hawser.

"In giving you an account of our last sailing, I thought it best to state, as it appears on our log. If Vernon was made a double-banked frigate, with an 84-gun ship's mast and yards, and 50 more men, she would, from her great stability, be more than a match for half the liners in the service. But the idea of putting a 74-gun ship's masts, yards, and sails in Vernon, of 2000 tons, is absurd, and looks as if they had been determined to destroy her fine weather sailing.

"We have certainly gained one point for Captain Symonds, by proving to the world that Vernon will sail in a heavy sea as well as in smooth water, and that Barham is a fine-weather bird. I only hope this may be the means of bringing us home for a trial in the Bay of Biscay or off the Western Isles. I assure you it is no sinecure, being in an Experimental ship; we have never had time to refit since Vernon was commissioned. I regret to hear you did not succeed at Devizes, but sincerely hope you will not be long without a seat in Parliament, for never did the Navy require support more than at the present time.

"Allow me to remain, with respect,

"My dear Sir,

"Your obliged and faithful servant,

"M. BRADSHAW."

"Captain J. W. Deans Dundas, R.N."

No. 46. *From Captain Sir W. Elliott, R.N.*

[Private.] "Revenge, Malta, December 16th, 1835.

"MY DEAR SIR WILLIAM,

"I have only a moment's time to say that you will see by the documents sent home, that the Admiral here, selected me to report on the sailing of the Vernon and Barham, and that I have done so.

"I think it right, however, that you should know that Vernon, has certainly of late, lost her sailing. Why, or from what cause, I know not. When she first joined the fleet, she beat every ship on *all points*, both in *light* and *strong* winds; but during the last cruise, she did not gain on Revenge one-half the distance she had before done, when sailing together. Vernon's sails are either badly cut or *badly set;* she is sailed too close to

the wind, and I do not think that she is otherwise *steered well.* The Barham always forereached on her, and from the moment of her tacking to try and weather Vernon (on opposite tacks), Vernon was always so *dead close* to *the wind* that her sails were little or *no use to her;* and the consequence was that Barham several times weathered her, when she certainly 'from their bearings' ought not to have done so, nor would, had Vernon been allowed to go through the water.

"Barham's courses, are, I think, at least four feet deeper than Vernon's, and her sails altogether, when spread, about ten feet higher than Vernon's; and this, in light winds, is certainly an advantage to Barham. In strong breezes, Vernon decidedly beats Barham, and the harder it blows the more she will do so—as to their going against a head sea, the Vernon is by far the superior ship; she did not pitch, or plunge, but appeared to me to go through the water very steadily, which was not the case with Barham. In carrying a press of sail, I need not tell you how superior Vernon is to any other ship. She is so upright under sail, that she could with ease fight her guns, when no other ship could attempt it. I was certainly surprised to see her carry the sail she did, without apparently feeling it, when Barham was at the time so much pressed. I need not tell you that the Mediterranean is not a good place to try ships, for you are aware how very variable the winds are here; but if these ships were to be tried in the Channel or North Sea, *I would myself* volunteer to sail Vernon against *any ship in the world;* for *I know what she will do if she is properly sailed.*

"The Alban is now getting under weigh, and therefore you will, I hope, excuse this very hasty scrawl, and consider what I have said as private.

"Believe me, very sincerely yours,

"WM. ELLIOTT."

[Captain Sir W. Elliott died 1838.]

"Sir W. Symonds, &c. &c. &c."

No. 47. *The Vernon Frigate.—Declaration of her Officers.*

"The officers of the Vernon having observed that various erroneous statements have gone abroad respecting her qualities, consider it a duty that they owe their country to disabuse the public mind of the prejudices thereby created: they therefore beg leave to state that, after nearly three years' trial of that magnificent ship, they consider her a *perfect* man-of-war in every respect, affording ample room to stow her provisions,

berth her crew, and fight her guns, under all circumstances; besides being a remarkably fast sailing and easy ship.

"Let any unprejudiced person examine her standing rigging (now in Sheerness Dockyard), that has been over her mast-heads, for nearly five years, and judge for themselves.

"In respect to her expenses, they assert, without the fear of contradiction, that they have been less during this commission than those of any ship of her class on the Mediterranean station; and they hope that every lover of his country, and friend to the wooden walls of Old England, will join them in wishing to see many such ships in his Majesty's service. There will then be no difficulty in bringing an enemy's fleet to action in the event of a war.

"JOHN M'KERLIE, Captain.
[Died a Rear-Admiral.]
"COLSON FESTING, First Lieutenant.
[Now Captain C. Festing.]
"EDMUND WILSON, Second Lieutenant.
[Now Commander Wilson.]
"PETER DUTHY, Third Lieutenant.
[The late Commander Duthy.]
"J. P. DAVEY, Fourth Lieutenant.
[The late Lieut. Davey.]
"E. G. E. NAPIER, Fifth Lieutenant.
[Drowned, Captain of the Avenger, 1847.]
"M. BRADSHAW, Master.
"ROBERT DUNCAN, Senior Mate.
[Now Captain R. Duncan.]
"W. MORRIS, Mate.
[Now Commander W. Morris (b).]
"T. MALING, ditto.
[Died a Lieutenant.]
"A. J. CURTIS, ditto.
[Now Commander Curtis.]
"JAMES STEEL, ditto.
"J. H. CRANG, ditto.
[Now Commander Crang.]
"ROBERT HULTEN, Second Master.

"Sheerness, March, 1837."

H.M.S. ROVER, 18 *guns.*

Built, 1832, at Chatham. Tonnage, 600.

No. 48. ***From Commander Sir G. Young, Bart., R.N.***

"Rover, Malta, 7th May, 1834.

"My dear Sir,

"I have no doubt you will be sorry to hear, as I am to relate, that your little ship has again met with a mishap, in striking the ground at Tripoli. I had run out of the inner harbour into the fair-way at daybreak with the usual land wind, expecting the easterly breeze would make in the afternoon, as we had been accustomed to find it. But, unluckily, a strong breeze, which increased to a gale, came on about eight o'clock, from the opposite direction, and the anchor parted. She drove a short distance, and was brought up by a second anchor, having the Ralins, a reef under our lee, and but little water her own length astern, though 4 and 4½ fathoms alongside. I saw it was necessary to slip both cables as soon as possible, and made preparations accordingly, binding our sheet to bring up with again.

"As we were in a situation which obliged us to cast in shore and re-enter the harbour, a bank laid down in the chart with 4½ fathoms, was inside of us, which I was in hopes we could have passed without injury, though the sea was getting up rapidly. Before we were quite ready she touched lightly abaft, and we slipped and made sail, paying off rightly towards the land, but struck several times in passing over the bank. In a minute or two we were in 7 fathoms again, and brought up in a safe berth. The bottom was a white sand and weed, but no rock. After picking up our anchors and cable, we came to Malta; finding she sailed and steered as well and easily as ever, and making hardly any water, not a quarter of an inch per hour. The divers report nine or ten feet of the false keel, from the stern-post, carried away.

"Fortunately we were very light, our water being very low; but I trust the damage is trifling, as it would be very disheartening, when the ship has been put thoroughly to rights inside, and we had begun to find her answering so very well in every way, to find her recalled from active duties, to undergo repairs. Accidents will sometimes happen to the most careful, and in this case, the anchor parting at the fluke was the whole cause of the disaster. I am sure you will be pleased to hear how much she is improved in ease and sailing, since the alterations made at Sheerness. Our passage out was good, and we arrived three days before the Endymion, who had a *week's start* of us.

We both had the same wind after rounding St. Vincent, which she passed three days before us, and it proved that we were only *four hours after her* in getting through the Straits; this was in a beat against a Levanter. I should hardly believe it was the same vessel that worked us so much in the winter of 1832-33. She has in more than one instance fairly gone more than 10 knots within 6 points of the wind, and by no means smooth water.

"Believe, me, &c.,

"GEORGE YOUNG."

[Captain Sir G. Young, Bart., died 1848.]

"Capt. Symonds."

No. 49. *From Commander C. Eden, R.N.*

"H.M.S. Rover, Pernambuco, June 7th, 1835.

"MY DEAR SIR,

"I had intended writing to you before, but delayed doing so in the hopes that I might have had an opportunity of trying rate of sailing with something *worthy* of beating, before I did so. However, as I am now in a part of the world where I have little chance of doing so, I shall write these few lines to add my testimony (if you should deem it worth having) to the very superior qualities of Rover over any ship I have ever served in. I left England on the 15th March, in a gale of wind, and had a succession of gales for fourteen days, when I reached Madeira; during which time she proved herself particularly easy, and *remarkably dry*, — much to my astonishment, having heard it foretold that I was never to expect a dry jacket in her.

"The only thing she requires, is to be eased of head sail in time — she then becomes perfectly dry, and sails the faster for it. As a proof that she is not a *very uneasy* ship, I have not carried away a rope-yarn since I left England; and I have, on several occasions, carried on to try what she would do.

"I find her trim to be 22 inches by the stern, instead of 18. The stability of the ship is something quite ridiculous. About ten days since, under double-reefed topsails and topgallant sails close-hauled, going 8 and 8½, I exercised fighting both sides, with powder. The lee guns were not for one moment a matter of consideration; and it was not till the middle of the exercise, that I began to think what *other corvette* could do this. The ship heeled 5½ degrees at the time.

"Yours very truly,

"CHARLES EDEN."

[Now Commodore C. Eden, of 1841.]

"Capt. Symonds."

No. 50. *Extract of a letter from Lieutenant (now Commander) J. G. Dick, on board the Rover.*

"Valparaiso, December, 1835.

"We are just arrived here, after a long and tempestuous passage of fifty-nine days, from Rio Janeiro. We had twenty days' gale of wind during the passage, and it blew harder at times than I ever witnessed, with a *mountainous* sea going. I was ordered to do duty coming round, which gave me a good opportunity of judging of the Rover's qualities. As far as my judgment goes, she is the finest sea-boat I ever was in. She is very stiff, carries her guns very high, and for a flush-decked vessel she is surprisingly dry. I think such a trial as we have had of her would satisfy the worst of the Surveyor's opponents."

No. 51. *From Commander Eden, R. N.*

"H.M.S. Rover, Valparaiso, December 13th, 1835.

"My Dear Captain Symonds,

"I have delayed writing to give you an account of the Rover until I should have an opportunity of telling you how she behaved in doubling the *far-famed Cape Horn.* I can now do so with infinite satisfaction. I sailed from Rio on the 14th of October last, perfectly crammed with stores and provisions for the squadron. The storekeeper at Rio informed me that I had got more in than any ship had ever taken before. Besides my own four months' provisions, I had fifty-five casks of rum, besides oatmeal, chocolate, and several small things stowed in the after-hold. The fore and main holds full to the hatches; on the lower deck, oak plank, &c.; on deck, spars, &c. In fact, she was so deep that, looking at her in Rio Harbour, I fancied it would be impossible to keep a dry jacket in her; she was drawing 14 ft. 6 in. forward and 15 ft. 7½ in. abaft.

"We went to sea, and within one week after our leaving Rio to within one week of our arriving at this place, we had a succession of very heavy gales of wind, and at times a most tremendous sea (unfortunately for me, *always foul*). For eighteen days (at different periods) we were under close-reefed main topsail and trysails, and for some days under trysails alone; and I can safely say that I never was in any ship so dry or so easy. This is the opinion of every one on board. I have often seen the watch walking the weather gangway, when the ship has been under this sail, as unconcerned (as far as the fear of getting a wet jacket from her shipping water) as if they were on board a three-decker. She did not ship *one sea* the whole of her passage;

one small one struck her, and stove in a port; and that is the extent of the *damage* done to her. We carried our quarter-boats (one a six-oared gig) and a canoe hoisted up astern; neither of them were touched. But what surprised us, and myself more particularly, was her weatherly qualities under that sail. On no one occasion did she make a point and a half leeway. This was proved for several successive days by the reckoning.

"I had a long passage (I only arrived here yesterday), five days out of which, I was at the Falkland Islands. A French corvette sailed fourteen days before me, and only arrived here six days ago. Most of the merchant ships have been seventy or eighty days; in fact, they have hardly any arrivals lately; but those that have come in, say they have experienced worse weather this summer off Cape Horn than ever before. So I trust Rover has had a fair trial, and that you are satisfied.

"I would have given a good deal to have had her newly coppered, for I am convinced the copper on her is *bad*—I mean the *quality of it.* Her bottom is as foul at this moment as if she had been lying in a dirty harbour for a twelvemonth. I have tried every thing in my power to clean it, by hogging, &c., but it is useless; consequently, in light winds I shall avoid a trial with other ships if possible. Report says that I am to return to Rio in about six weeks or two months. I wish it were possible to get her a run home to be coppered, as I do not think she could have a fair trial with other ships at present; for what concerns *me* more particularly is, that if she is beat, some good-natured fellow may say that it is *my* fault. I took eight tons of ballast out of her at Rio, previous to taking these stores in; but if you remember, that was an *extra* eight tons, put in by my request at Plymouth. I sail for Callao in two days to join the Commodore.

"Peru is in a dreadful state; all sorts of rows at Lima. One thing I consider hard, that I am to have five men less than Sir G. Young had in her.

"I remain, dear Sir, yours very truly,

"Capt. Symonds." "CHARLES EDEN."

No. 52. *From Commander A. S. Hammond, R. N.*

"H.M.S. Rover, Valparaiso, July 23rd, 1836.

"MY DEAR CAPTAIN SYMONDS,

"When we were going down to Gozo together, in one of your little schooners at Malta, I did not think that nine years afterwards I should be writing to you from this outlandish place, for the purpose of giving you a description of one of your beautiful vessels, which I at present have the honour of commanding.

We have just arrived here from Rio de Janeiro, after an exceedingly boisterous passage round Cape Horn, in the depth of winter, and never was I more delighted (*and the whole of my officers likewise*) with a vessel. We have tried her in all sorts of weather, from a 'calm with a heavy rolling sea,' to 'as hard a gale as I ever witnessed, and worse seas,' and she has behaved nobly. We ran 13½ knots off Cape Horn with a jury-main-topmast, having previously, in a very hard gale off the Falklands, found our mainmast very badly sprung; which I attribute to the badness of the spar, it being close to a very ugly knot in the wood. However I am fishing it here, and hope to make it as secure as ever.

"We have men on board who have been in the Rover since she was built, and they say they have never seen such weather, or the ship so much tried; and the more she is so, the better *we all like her!* She ought to have 42-*pounder carronades* instead of her present armament, and *thirty more men; that* is the only thing I complain of, and I think any person on board us, seeing our masts and yards, *with the watch working her*, would not have another doubt on the subject. At any rate, give her the war complement of sloops, 135 men, as we had in the Pearl when I was in her; that would be a great addition. Coming up this coast, off Cape Pillar, under close-reefed topsails and reefed courses, with a *high sea on*, we were going 7 and 8 knots; I am sure one of the old 28-gun ships (to one of which I belonged three years) would not have been going 5, and making with that perhaps 3 points leeway; whereas we were scarcely making *half a point!* Everybody on board is delighted with her. I have a mate who was in the Pique, and he tells me we make better weather of it than she did.

"I was determined to let you know my opinion of the Rover the moment I could, and shall be happy to give you any further information on the subject.

"They cry out about your vessels not stowing anything; we have room at present over our tanks to stow another tier, by which we could carry eighty tons, instead of forty-five, her present quantity; and we can, with the greatest ease, take on board nine months' provisions of every sort, excepting bread in the bread-room, and we can stow *six months* of that in it, and put the remaining quantity in the after-hold spirit-room, *in casks.* Such is her *non-stowage!!!*

"Always, I beg to remain, my dear Sir,

"Very faithfully yours,

"AND. S. HAMMOND."

[Now Captain A. S. Hammond, of 1846.]

"Capt. Symonds."

No. 53. *From Captain Boxer, R. N.*

"H.M.S. Pique, Barbadoes, November 30, 1838.

"My dear Symonds,

"I wrote you a hasty note yesterday. I have given Modeste and Rover three days to put themselves to rights. Rover with her new rigging and new ship's company managed remarkably well. Everything was against him; he therefore ought to be proud in coming off so well; and if he only continues to beat Modeste on a wind (and I think he must do so on our passage down) he will prove her in every way to be the best ship; and I think we shall have no more Modestes built. Indeed, I am satisfied such never can answer; she is leewardly, and cannot stand up or carry sail in strong winds, as you will see by our second trial; and as she does nothing off the wind, she must be a failure, unless she improves in our next trials.

"Her Commander appears certain he is to beat us both in the next trials, but I think he will be much mistaken. I am sorry to say our copper is very foul, and I much fear, with all our hogging, it will always be against us in our trials; but be assured it shall not be my fault if it is not kept clean. You would have been delighted to have seen how we walked to windward, and the wind quarterly; we spared them all our studding sails, and still beat them.

"I remain, &c.,

"E. Boxer."

[Rear-Admiral Boxer died, 1855, in the Black Sea, superintending the Transport Service.]

"Sir W. Symonds."

No. 54. *From the same.*

"H.M.S. Pique, Port Royal, 11th December, 1838.

"My dear Symonds,

"I wrote you from Barbadoes, giving you an account of our trials out; and I now forward to their Lordships all the reports connected with them, which you will of course see, and which are decidedly in favour of Rover. On our passage from Barbadoes, Modeste, to my astonishment, improved a little to windward, having run Rover very hard in a six hours' beat, though Rover had the advantage. But off the wind Rover beat him very much, the two last days, when out on trial, and I found Pique, in the last beat to windward, hardly equal to Rover. Indeed they had the advantage,—the Rover weathering and Modeste forereaching more than equal to my going to windward; which I attribute to being 100 tons of water short. On my arrival, we were 1 ft. 8 in. by the stern,

which clearly convinced me that, for trial, I must not be too short of water, and shall therefore fill salt water when I am so situated; although it makes no difference in her stability, for she stands up always the same.

"We sail to-morrow for Vera Cruz, and Commodore Douglas follows in two or three days with the squadron,—the Admiral's health not allowing him to go with us; indeed he appears quite worn out. We are all extremely sorry, as you may suppose, at his illness, for he is very popular with all hands, and it will require great judgment and prudence in the service we are employed on.

"As your son, who is a very clever fellow and full of zeal, will write to you all the particulars of our trials and what is going on here, I shall now conclude, and remain,

"My dear Symonds, &c.,

"EDWARD BOXER."

"Sir W. Symonds."

No. 55. *From the same.*

"H.M.S. Pique, Barbadoes, 28th Nov. 1838.

"MY DEAR SYMONDS,

"You will, I am quite sure, be very anxious to hear the result of our trials; and I assure you I am much gratified in being able to inform you that, so far, the Rover has had a decided advantage over her opponent, and I have no doubt will continue her superiority in our trials on our passage to Jamaica. You will be surprised to hear that even off the wind she has had a decided advantage, which has increased on the three last trials; and I have no doubt will still do so as she gets lighter.

"On a wind she has had likewise a decided advantage, having, out of four trials, beat him three; but the last, to my astonishment, in short tacks, was beat about a half mile to windward in about three hours. I am afraid your son held him too cheap, having beat him very much in all the trials before; indeed I think it quite impossible he can sail to windward; and if Rover beats him the next trials, on a wind, Modeste must be considered a complete failure, for she is nothing off the wind. You will no doubt get my Report from the Admiralty, and as your son will also write you a full account of our proceedings, it will be unnecessary for me to say any more. He will also, I hope, speak of Pique as she deserves. Indeed, we astonished them, having beat them in every point of sailing; and I hope on our passage down we shall keep our good name.

"Yours, in great haste, very sincerely,

"EDWARD BOXER."

"Sir W. Symonds."

A Report of the trials of sailing of H.M. Sloops Modeste and Rover, on their passage to the West Indies, and the opinion formed of their comparative merits, by Edward Boxer, Esq., Captain of H.M.S. Pique, in pursuance of orders from the Lords Commissioners of the Admiralty, dated the 20th Oct. 1838 [Enclosure in the foregoing letter]:—

"FIRST TRIAL.

"Oct. 30.—Moderate breezes and cloudy, with a heavy N.W. swell; wind S.W. 9·40, made signal to Rover and Modeste to try rate of sailing, on a wind, on the larboard tack, and Rover to take station two cables' length astern of Modeste. 9·50, ships in their station; made signal to make all possible sail with safety to their masts. Made sail under courses, whole topsails, topgallant sails, jib, and spanker. At 11, the weather squally; wind unsteady; Rover appearing to weather on Modeste. At 12·30, thick and squally weather, made the signal to recall Rover.

"In this short trial, it appeared evident to me that the Rover weathered more than equal to the forereaching of the Modeste.

"SECOND TRIAL.

"Nov. 1.—Moderate breezes and hazy. At 8·50, made signal to prepare to try rate of sailing on a wind on the starboard tack, and the Modeste to take station two cables astern of the Rover. 9, made signal to make all possible sail with safety to the masts; wind N.W. by W., with a heavy swell from the N.W. Sail set; single-reefed topsails, courses, topgallant sails, jib and spanker; Rover, at starting, carrying a main-royal. 10·50, made signal to show the number of degrees of inclination: Rover made 6°, Modeste 7°. 11·30, made signal to Modeste to tack. 11·45, Modeste tacked on Rover's lee beam, not being able to weather her. The breeze then freshened, which gave both ships a fair trial. 12·30, made signal to show the different degrees of inclination: the Rover made 8°, Modeste 12°. The breeze still freshening, the Modeste took her topgallant sails in, the Rover carrying hers. 12·58, the Rover hauled down her jib, at the same time making signal that her jib guys were new. At 1·20, Modeste reefed, appearing to be very much pressed. At that time the Rover had weathered her 1½ mile, keeping her nearly in the same bearing. 1·30, the weather thick and squally, made the signal to shorten sail.

"In this short trial the Rover showed very superior advantage over Modeste in stability and carrying sail; beating her 1½ mile dead to windward, in 1 hour 15 minutes.

"THIRD TRIAL.

"Nov. 2.—At 9 A.M., made signal to prepare to try rate of sailing; wind N.W., a long swell in the same direction; Rover to take station three cables astern of Modeste. 9·20, made signal to make all sail with safety to the masts; both ships made all sail with starboard studding sails, and after running about 30 miles, they appeared to me to be steering to windward of their course. At 1 P.M., made signal to show their relative bearings and distance; the Rover made Modeste two cables S.S.W.; the Modeste made Rover, N.N.E., 730 yards, which gave Rover a slight advantage over Modeste. Made signal to chase Pique, both being on our weather-quarter. At 5, Modeste shortened sail on the Pique's lee-quarter, and made signal, Rover 2100 yards. During this trial, the wind continued very steady at N.W. by N., but rather increasing at the latter part of the trial.

"In this trial, after signal was made to chase Pique, the Modeste beat Rover about $\frac{3}{4}$ of a mile.

"FOURTH TRIAL.

"Nov. 3.—Fresh breezes, wind N., with a long northerly swell. 9, made signal to try rate of sailing. 10, both ships made all sail by signal, with studding-sails. When Modeste, was three cables astern of Rover, made signal to chase Pique; and after running about 60 miles, and in coming within hail of Pique, Modeste had gained on Rover about three quarters of a mile, showing a decided advantage over Rover.

"FIFTH TRIAL.

"Nov. 16.—At 10·30, made signal to prepare to try rate of sailing. 10·40, made signal for Modeste to take her station astern of Rover. 10·50, made signal to make all possible sail. Both ships made all sail, wind W. by S., Modeste one cable astern of Rover. 11·40, made a signal to show relative bearings and distance every hour. At noon, Rover made Modeste E. by S. 180 fathoms; Modeste made Rover W. 610 yards. At 1 P.M. Rover made Modeste S.E. 1 mile; Modeste made Rover, N.W. $\frac{1}{2}$ W. 2005 yards. At 2, Rover made Modeste S.E. $\frac{1}{2}$ S. 2 miles; Modeste made the Rover, N.W. 4278 yards. 3, Rover made Modeste S.E. 3 miles; and Modeste made Rover, N.W. 3 miles. At 4, Rover made signal Modeste bore S.E. 4 miles; Modeste made signal Rover bore N.W. 4 miles. At 4·5 trial ended.

"In this trial the Rover had gained, in five hours, 4 miles to windward, without the Modeste forereaching; therefore showing, in light breezes and a long swell on the beam, a decided advan-

tage in favour of the Rover; the wind during the trial varying to the W. ½ N.

"SIXTH TRIAL.

"Nov. 19.—Fresh breezes and fine, wind N.N.E., with a northerly swell. 9·40, made signal to Rover and Modeste to prepare to try rate of sailing.

"At 9·50 made signal to chase Pique (Pique steering W.). Rover and Modeste made sail in chase, under royals and all starboard studding-sails; Rover two cables' lengths N.W. by W. of Modeste. At 10·40, Modeste crossed Rover's stern, and remained on her weather-quarter and astern during the rest of the trial. At 5·30, trial ended, Rover bearing from Modeste W. four cables' lengths.

"In this trial Rover had a slight advantage over Modeste.

"SEVENTH TRIAL.

"Nov. 20.—Fresh breezes, and easterly swell, wind E. by N. At 8·50, made signal to Modeste and Rover to prepare to try rate of sailing by the wind, and to take station (from Pique) W. by S. 9 miles. At 9·20, made signal to Rover to take her station three cables' lengths astern of Modeste before starting for trial. At 9·50 shortened sail, and rounded to, to allow Rover and Modeste to run to leeward. At 11·20, observed Rover and Modeste to make sail; the Rover ahead of Modeste. 11·25, Rover hauled up mainsail, to allow Modeste to pass ahead and take her station. 11·35, Rover and Modeste made sail under single-reefed topsails, topgallant sails, jib, spanker, and courses, to try rate of sailing to windward, Modeste bearing from Rover N. by E. three cables' lengths. At 1·50, made signal to Rover and Modeste to show relative bearings and distance, and degree of heel; Rover made 4°, Modeste 6°; Rover made Modeste N.N.W. 3 miles, Modeste made Rover S.S.E. ½ E. 4601 yards. At 2·20 the trial ended.

"In this trial the Rover gained nearly 3 miles ahead of Modeste, being at starting three cables astern of Modeste on the starboard tack; and when the trial was over, taking the mean of the two reports, 2½ miles ahead of her on the port tack, showing a very decided advantage over Modeste, they having only made one tack.

"EIGHTH TRIAL.

"Nov. 22.—Moderate breezes, wind from E. by S. to E. by N. At 7, made signal to Rover to take station three cables' lengths S. of Modeste. At 8·20, made signal to Modeste and Rover to prepare to try rate of sailing. 9·50, made signal to try rate of

sailing, and to carry all possible sail in chase of Pique (she steering W.). Rover and Modeste made sail in chase under royals, and all studding-sails on both sides, Rover three cables S. of Modeste. At 10, made the signal that the trial would end at 4 P.M., and to show relative bearings and distance every hour. At 11, Modeste made Rover S. by W. 740 yards; Rover made Modeste N. by E. 1 cable's length. At noon, Modeste made Rover S. by W. ½ W. 402 yards; Rover made Modeste N. by E. ½ E. 2 cables. At 1, Modeste made Rover S.S.W. 391 yards; Rover made Modeste N.N.E. 2 cables' lengths. At 2, Modeste made Rover S.S.W. 380 yards; Rover made Modeste N.N.E. 2 cables' lengths. At 3, Modeste made Rover S. by W. 577 yards; Rover made Modeste N. by E. ½ E. 2 cables' lengths. At 4, Modeste made Rover S. by W. 631 yards; Rover made Modeste N.N.E. 2 cables' lengths. At 4·5 the trial ended.

"In this trial Rover had gained 1½ points ahead of Modeste.

"NINTH TRIAL.

"Nov. 23.—Fresh breezes, wind E. by N. 9·50, made signal to try rate of sailing, N.W., at 11 o'clock. 10·15, made signal to Rover to take station 4 cables astern of Modeste. At 11, made signal that trial had commenced, and would end at 4 P.M., and to chase Pique. Modeste and Rover made sail under royals and all starboard studding-sails, in chase of Pique. At 11·30, made signal to Modeste and Rover to show relative bearings and distance every hour. Rover made signal that Modeste bore at starting N.W. 4 cables' lengths. At noon, Rover made Modeste W.N.W. 4 cables' lengths; Modeste made Rover E.S.E. 806 yards. At 1, Rover made Modeste W. by N. ½ N. 4 cables' lengths; Modeste made Rover E.S.E. 800 yards. At 1·20, Rover set her main-topmast and topgallant studding-sails. At 2, Rover made Modeste W. ½ N.; Modeste made Rover E. ½ S. 416 yards. At 3, Rover made Modeste S.W. 1 cable's length; Modeste made Rover N.E. 217 yards. At 4, Rover made Modeste S.S.W. 1 cable's length; Modeste made Rover N.E. by N. 188 yards. At 4·5 the trial ended.

"In this trial Rover beat Modeste about half a mile, the wind steady.

"TENTH TRIAL.

"Nov. 24.—Moderate breezes and fine, wind E., with an easterly swell. At 7, made signal to try rate of sailing in short tacks. At 8, made signal to the Modeste and Rover to take station W. of Pique, 9 miles, Modeste to take her station 3 cables' lengths astern of Rover, and to start for trial when in station,

tacking every quarter of an hour. 9·50, observed Modeste and Rover make sail on starboard-tack under whole topsails and topgallant-sails, to try rate of sailing to windward, Modeste bearing from Rover S. by W. 3 cables' lengths. 10·10, Modeste set flying-jib. 12·15, made signals for Rover to tack. 12·20, Rover tacked to cross Modeste. 12·35, Modeste tacked per signal. 12·50, Rover made Modeste N.N.E. ½ E. 1400 yards; Modeste made Rover 1425 yards. At 12·50 trial ended.

"In this trial the Modeste had a decided advantage over the Rover, having beaten her nearly half a mile to windward, as shown by Modeste's bearings from Rover when the trial ended.

"ELEVENTH TRIAL.

"Nov. 26.—At 10, the wind E. by N., moderate breezes; made the signal to try the rate of sailing, and the Rover to take station 3 cables S. by E. of Modeste. At 12·20, made signal to chase Pique, steering W. by S., all sail set, studding-sails on both sides. At 5 the trial ended, Rover having beaten the Modeste about three quarters of a mile.

"EDWARD BOXER, Captain."

"I beg leave to observe that the great superiority of the Pique in every point of sailing over the two sloops, has enabled me to form, I hope, a fair and correct opinion of their respective merits.

"EDWARD BOXER, Captain." *

H.M.B. SNAKE, 16 *guns*.

Built, 1832, in the Thames.

No. 56. ***From Commander W. Robertson, R.N.***

"Snake, in the Downs, December 10th, 1832.

"MY DEAR SIR,

"I have not the least doubt but some of our good-natured friends have alarmed everybody about our long absence,

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* *From Admiral Bowles, M.P.*

"MY DEAR SYMONDS,

"I return Boxer's letters, with many thanks, and cannot help being very glad that the Modeste's failure will act as a caution against more experiments of the same sort.

as many have predicted our craft unsafe, and would like to see their prophecies fulfilled. The truth is, we sailed from the Downs with the same wind that brought the Admiral from Goree, S. S. W., which shifted to W. N. W. the following morning; but not such a gale as induced me to suppose the squadron would quit the station. We stood close in to Goree, and hauled out to the northward, supposing the Admiral would weigh with the W.N.W. breeze and stand north: we had a succession of westerly gales, and, when moderate, we captured a Dutch vessel, who told us positively that he had fallen in with the squadron two days previous, consisting of seven ships and two steam-boats, standing to the northward. The number agreeing so well with our squadron, made me believe that the Admiral had kept the sea. Perhaps I persevered too long in search; it was not until I had examined all the different parts of the coast where any of the squadron might be expected, that I returned. The Admiral has given me a good wigging; I deserved it, and will come into port sooner another time.

"The brig behaved uncommonly well: we had a very irregular cross sea at times, but we strained nothing and shipped very little water; we found her to lie-to well under close-reefed main-topsail and fore-staysail, or double-reefed foresail; she then carried her helm amidships and aweather. She would not bear the main-topsail when blowing strong: the long guns were kept purposely in their proper places. The stern boat is all safe.

"It will be next to impossible to keep a squadron off Walcheren or Goree collected, for the next three months; off the Texel they may keep together and get into the North Sea, in case of a N. W. gale. Detached single vessels may pick up a stray Dutchman; as for a blockade we must trust to a good hard frost, which will more effectually shut up the ports than all our cruisers.

"I have the honour to remain,

"Yours, ever faithfully,

"W. ROBERTSON."

[Now Captain W. Robertson, of 1837.]

"To Sir Thomas M. Hardy, Bart."

"I am vexed to see the Pique is so foul at the moment she is to be tried with the Inconstant.

"Yours very truly,

"WM. BOWLES."

"Customs, Feb. 24, 1839."

No. 57. *From Commander A. W. Milne, R.N.*

"H.M.S. Snake, Port Royal, Jamaica, 16th December, 1837.

"MY DEAR SIR,

"I have long intended writing to you a few lines, even from our first arrival on the station, that I might give you some account of the Snake. I am, however, now glad that I had not done so before; as I have the satisfaction in, now, not only praising her good qualities in every way, but can adduce ample proof, from our having captured two Slavers. One was the Arrogante, Portuguese brigantine, of about 200 tons, American built; and the other the Matilda, a Spanish two-topsail schooner, 198 tons, and also of American construction. The former we caught running free, with a fresh breeze in squalls from the north; and, falling calm, we had recourse to sweeps to finish the business, with the aid of the long gun. The Matilda we cut off, running on shore, and hauled his wind, when we rapidly closed with him.

"We also chased, last June, a two-topsail schooner, and beat two days in succession when on a wind, closing with him at dark; but the wind changing brought him right ahead, and both of us before the wind. We ran this way for twenty hours, during which time he gained about 2 miles, and we lost him in the dark, after a thirty hours' chase and run of 360 miles.

"We have found Snake answer beyond our expectations in every way,—her best point, about one point free; and maintaining her sailing with the wind. Her best trim is when having about six weeks' to a month's provision on board; then her draught is about 18 inches by the stern. We have just returned from a dismal cruise in search of Madagascar's guns, and experienced a Norther while at anchor on a coral bank, off Siral Campechy Bank, and lost *every* anchor, broken in the shank; from their being from the bows coming up, we supposed it improved her, going free. Since leaving England we have had no general caulking until now; as *green wood* had been put into her sides (inside), abreast of the fore and main rigging, they had to be removed, as they actually fell *out*. From this cause the topsides worked, and had to be caulked two months ago; while the ship having been caulked last November (1836), during snow, we now actually require it again. However, all is right and tight and secure on board of her; and to myself, and every other officer in her, she affords the utmost satisfaction. But I cannot help saying they did not do her justice at Sheerness in many little ways, which it has come from my purse, to place as it should be. Our chain rigging has been shamefully neglected. Our sails stand well,

but I would mention that the *sails* are too taut in the foot; they *split* there. The fore-topmast-staysail the same, but too slack and bagging aloft. I would also leave for your consideration, whether it would not be better to have the topgallant-sail and fore-topmast-staysail made of canvas a number stronger than they are at present; 6 inches off the hoist of the boom mainsail would make it stand better, when it becomes well stretched; and also about as much off the courses, as the leeches, after some time in us, become slack. By this small alteration, or between that and 12 inches, I am confident the sails would answer better; but the *jibs* in particular require altering.

"I have no naval news; we seldom meet each other here. I have merely seen the Racer for a day, and also Ringdove, but none of the others of your build. Before I close this, the latter vessel may probably arrive from a three months' cruise. Comus has also suffered in the Gulf Stream. Rainbow has gone to Vera Cruz to freight; but must be here about the 15th February, when the Admiral will also have arrived. His flagship has gone to Barbadoes, and I hear he will come down in Pearl. I hope you will mention in Sheerness yard the faults of our chain-rigging. They are as under: slings of main-yard carried away, foremast, fore and main futtock shroud, several times. Main topsail sheets twice gone; fore ditto five times. Boats' davits quite adrift, and perfectly insecure.

"I regret to see you have met with so unfortunate an accident; I trust, however, ere this, you have again got on your legs. We are all well here, although we had a severe touch of *fever;* our Admiral had about thirty on the list.

"December, 24th.

"I sail on the 29th for Havanna. Accept my best wishes for the return of the season, and I hope ere long I shall hear of your recovery. Our ballast answers well, I think, stowed as it is. Ringdove and Wanderer are here looking well. I wish I could try them, I expect I should beat.

"Believe me, yours, &c.

"A. W. MILNE."

[Now Captain A. W. Milne, of 1839, and a Lord of the Admiralty.]

"Sir W. Symonds."

No. 58. *From the same.*

"H.M.S. Snake, Bermuda, May 5th, 1839.

"MY DEAR SIR WILLIAM,

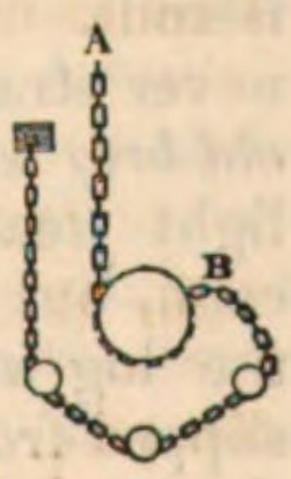
"I take the opportunity of the Cornwallis returning to England, to write you a few lines, which I have long neglected to do; as I am at present only a supernumerary on

board the Snake, I am an idle man, waiting the arrival of the Crocodile * from Halifax. The change to me will be great from the fast sailing of the Snake, and I can assure you I leave her with much regret; perhaps, however, to rejoice, as I am by no means sanguine in obtaining my confirmation; yet I hope for the best.

"Snake has maintained her good qualities in every respect; although in a trial with Rover, the latter forereached about 600 yards in a run of 32 miles, going free with variable wind. Vestal afterwards came up with us, having trimmed by the head. None, however, of Snake's class can compete with her. Pilot, in light winds on a wind and free had the advantage; but blowing fresh, Snake has rather a superiority. Snake, however, was very short of provisions and water during the trial; still I think their respective qualities will be as I have here stated.

"Rover is at present at Jamaica, although I have not heard of her lately, having been sent from Vera Cruz to Barbadoes, and from thence here. Inconstant arrived yesterday, twenty-three days from England, bringing out the new Admiral, whom we were surprised to see so soon, having only heard of his appointment, *viâ* New York, not a week ago. Ringdove has left this for Norfolk, U.S., to communicate with Mr. Fox, our minister, relative to the state of affairs in America; but we hear there is no prospect of a rupture. Several of their ships are fitting out, but there is a great want of men: they are now offering thirty dollars per month, and still no volunteers.

"The French squadron, we hear, have left Vera Cruz. We were nearly three months lying together at that place, and had an opportunity of seeing their new improvements. The chief one was the *invariable* use of detonating locks, acting on the principle of a hammer falling down on the *vent hole*, in which a tube is placed of the same material as ours, the *top* alone being of detonating powder. They say they answer most completely, and never miss fire. Their new improved *tubes* are entirely covered with sealing-wax. Their ships were also fitted with capsterns, to which the cable itself is brought, the chain links fitting into a *socket* on the lower part of the capstern. In heaving in the small bower, the chain cable coming along the larboard side from A, passes round the capstern and comes off at B., passes round or rather outside of three small rollers, and goes forward to its own chain locker. From all I heard, it appeared to answer well, and is apparently a decided improvement. There are no



* Built 1825; now a Troop ship. Captain Milne was posted into her 30th January, 1839.

projecting pieces of iron from the capstern, as in those fitted for the chain messengers, but simply a series of oval sockets of the size of the chain link. Their topgallant-masts are also fitted with a rack and paul as in the Pique's topmasts.

"I understand the Americans are building several corvettes of 16 guns, long 32-pounders, of heavy scantling, and about 600 tons; two are already launched.

"I have no further news, but only regret Crocodile is not a Vestal; and with every good wish, believe me,

"Yours very truly,

"ALEX. MILNE."

"Sir W. Symonds."

H.M.B. RINGDOVE, 12 *guns*.

Built 1833, at Plymouth. Tonnage 429.

No. 59. *From Commander H. S. Nixon, R.N.*

"Ringdove, at Sea, 1837.

"DEAR SIR,

"We sailed from England June 26th, to convey the news of the King's death to Barbadoes, which we did by arriving at Barbadoes, July 23rd. Sailed again the 25th. Caught in a hurricane the 26th, which did great mischief at Barbadoes, St. Lucia, &c. During it we were battened down, had topgallant-yards and masts, jib-boom, &c., on deck, and scudding 8 or 9 knots, without a stitch of sail set. We had a small boat astern, which I felt so convinced we should lose, that I was on the point of cutting her away, but thought I would give her a chance, and most beautifully and safely she carried her.

"We had a heavy, cross, chopping sea. After blowing in heavy squalls from all points, the gale settled from the southward. I was glad to scud N. by E., to draw off from the islands. The bowsprit worked a good deal, but otherwise she never strained a yarn; *perfectly delighting me, as well as several old brig sailors on board.* After this we had a long series of light weather; in any other vessel I would have said, a dead calm, but she always kept her head the right way, and though the log would have given nothing, we always found she had slipped from 20 to 30 or 40 miles in the twenty-four hours. In six weeks, I may say, we have been in Europe, Africa, (St. Palmas), West Indies, and North America (Bermuda).

"Believe me, dear Sir, &c.

"H. STOPFORD NIXON."

[The late Captain H. Nixon.]

"Sir W. Symonds."

No. 60. *From the same.*

"Ringdove, Jamaica, December 24th, 1837."

"MY DEAR SIR,

"I have lately had an interesting chase after a Spanish man-of-war and a slaver brigantine, La Vigilanté, claiming to be under the other's convoy; but whom I detained. Ringdove never pleased me so much, going free, before. We came in here a few days after, without grog for the day, and but four days' provision and a little water; so she was flying light, and two feet ten inches by the stern. We have had great chasing, and been beat by nothing but one light brigantine dead before it; yet the two vessels we have detained are only worry and annoyance. I enclose you a copy of my correspondence about the last, and a blood-thirsty attempt to assassinate my boat's crew. I am off to Carthagena to-morrow, and expect to meet the Admiral and all the squadron here in February. I sincerely hope you are quite recovered from your late accident.

"Believe me, my dear Sir,

"Yours very faithfully,

"H. STOPFORD NIXON."

"Sir William Symonds."

H.M.S. PANDORA, 6 *guns.*

Built 1833, at Woolwich. Tonnage 318. Rigged as a brigantine.

No. 61. *From Lieutenant-Commander W. P. Croke, R.N.*

"Pandora, Falmouth, January 22nd, 1834.

"DEAR SIR,

"I have much pleasure in acquainting you with the arrival of Pandora from Jamaica, — last from Crooked Island. From the latter twenty days, and the former twenty-nine; having made the voyage in ten weeks and two days,—the Admiralty time allowed for the voyage being fourteen weeks, remaining two to four days at Jamaica. Pandora remained there eight days. This is, I believe, the *shortest voyage* made by any packet to Jamaica. It is the more fortunate as we have been the bearer of the Jamaica Slave Bill, which Lord Mulgrave was most anxious should arrive in as speedy a time as possible.

"As to her qualities as a sea boat, we have had an opportunity of trying her in as hard a gale and as high a sea as it falls to the lot of most seamen to see. We ran for seven days before a heavy gale, and for some hours a tremendous sea, still going

on, in safety and comfort, at from 10½, 11, to 12 knots, and I believe at times much more. We have not lost a rope-yarn nor a chip of wood, and I can safely say, that not two gallons of water came into our little jolly boat astern. Indeed, every man and officer is pleased with her, particularly in scudding.

"My passengers have all been much pleased with the Pandora. . . .

"I have the honour to be, dear Sir,

"Your obedient servant,

"WENTWORTH V. P. CROKE."

[Now Retired-Commmander W. P. Croke, of 1853.]

"Captain Symonds."

No. 62. *From the same.*

"H.M.S. Pandora, Falmouth, October 14th, 1834.

"DEAR SIR,

"I beg to acquaint you of our arrival from Mexico, and to assure you the Pandora had given us much satisfaction during a complete hurricane on the 4th of September, when crossing the Campechy bank of soundings. The gale began at N.N.E., shifted to N.W., W., and S.W., and settled into a heavy gale at S.E. The barometer fell in a most unusual way for this latitude, from 25·96 to 29·10. The sea was really terrible, yet no vessel in the world could behave better. I can safely say that there was not half a ton of water on her deck during the whole gale.

"She was brought from a topgallant sail to a close-reefed fore and aft foresail, and I am convinced that her great buoyancy (which is the *life of a small vessel* or of any flush vessel) is owing to her breadth and height. Everybody is acquainted with what a sea is in such cases, and that it is more destroying than in the heaviest gale, with the wind constant to one point.

"I am very glad to hear you are building six packets some tons larger than Pandora, but I trust not to be brigantines, as they will be too large for the rig. The Pandora, as I have before said to you, had not quite fair play by it. I could carry away the main boom with the royal set, and it is not a good rig for a packet. We are to take the Brazilian mail in November, but before that time I will have great pleasure in writing to you again. . . .

"I have the honour to be, dear Sir, &c.

"WENTWORTH V. P. CROKE."

"Captain Symonds."

No. 63. *From Capt. A. King, R.N., Superintending Packet Service.*

"H.M.S. Astræa, Falmouth, 18th May, 1835.

"SIR,

"In reply to your letter of the 16th inst., signifying to me the directions of my Lords Commissioners of the Admiralty, to call upon Lieutenant Croke, and the officers of the Pandora, to report very particularly relative to her sailing, stowage, and general qualities as a sea boat, in comparison with other vessels of any description, and more particularly as to her stability, and how she performed against a head sea —

"I beg to acquaint you, for their Lordships' information, that I have called on Lieutenant Croke and his officers for the same, whose report I herewith transmit.

"I am, Sir,

"Your obedient humble servant,

"AND. KING, Captain."

"To Charles Wood, Esq., &c. &c. &c.

"Admiralty."

[Enclosure.]

"H.M. Packet Pandora, Falmouth, 10th May, 1835.

"SIR,

"In compliance with your directions to report for the information of my Lords Commissioners, relative to the Pandora's sailing, stowage, and general qualities as a sea boat, in comparison with other vessels, as to her stability, and how she performs against a head sea —

"The Master and myself beg to state, that up to this time she has always had the advantage in sailing, with every vessel we have tried with; that she stows well, for her complement, five months' provisions, with twenty-four tons of water; that we consider her to be an excellent sea boat; that she is very stiff under her canvas; that against a head sea her motion is quick, but that it does not stop her any more than other vessels under similar circumstances; and upon the wind, in heavy weather, she performs well indeed.

"We have the honour to be, Sir,

"Your obedient servants,

"W. V. P. CROKE, Lieut.-Com.

"SAMUEL SIBLY, Master."

"To Capt. And. King, C.B.

"&c. &c. &c."

No. 64. *From Lieut.-Commander R. W. Innes, R.N.*

"H.M. Packet Pandora, Falmouth, July 16th, 1837.

"My dear Sir,

"We arrived here a week since having had to contend against a N.E. wind, 15 days, and 26 from Halifax. My outward passage of the same number pleased all the people there; and as it was Pandora's first appearance, she was visited by all classes, and gained the admiration of all, except those sycophants of Sir G. C. However, to settle the point, I offered 100*l.* against any vessel they could produce.

"I have now tried her on all points and weather, and I repeat my thorough conviction that she is the safest vessel I ever sailed in; although coming home on the outer edge of the Gulf Stream, we encountered a very heavy gale from the westward, running before it 10 and 11 knots, under double-reefed topsail and foresail, with a cross sea running in very heavy broken rollers. Of course the deadlights and all necessary precaution had been used. At 3, I went down to dinner, quite satisfied, with common attention, we were doing well. In a few minutes after, I should think, from having allowed her to broach-to, a heavy roller broke in over the starboard quarter, and washed away binnacle, stove the dingy on deck (repairing) into small pieces, and damaged two or three hammock stanchions. The officer of the watch, man at the helm, received severe contusions, and one man had an arm broken. Not a drop of water went below, and before I could get on deck it had all disappeared, being only ankle deep. This did not deter me from still running, and I afterwards proved this accident must have been from neglect. The gale, certainly, was not one of a common description. A very large ship we passed, under bare poles, appeared to be suffering, and one the day before was dismasted.

"Colonel Brough, of the Artillery, the only passenger on board, has written back to Halifax much in praise of Pandora. This gale has now proved to me her excellent qualities on all points, and her sailing astonishes me the more I see of it. In coming in here, we worked from the Land's End round the Lizard to Falmouth, in 14 hours, against a very strong wind and sea, when no vessel could get round. A Swedish frigate and a round stern 20-gun brig (French), we left out of sight in six hours on our passage.

"My next trip will be to the Brazils, on the 4th of next month. I had hoped to have been here when the Admiralty visit the establishment.

"With my best respects to Lady Symonds, believe me, your attached servant,

"ROBT. W. INNES."

[The late Lieutenant R. W. Innes.]

"Sir W. Symonds."

H.M.S. VESTAL, 26 *guns*.

Built, 1833, at Sheerness. Tonnage 913.

No. 65. *From Commodore Sir T. Ussher, R.N., Superintendent of Halifax Yard.*

"Royal Yard, Halifax, Nov., 1836.

"MY DEAR SIR WILLIAM,

"I avail myself of the opportunity by this packet to send you a paragraph from a Grenada paper, which cannot fail to interest you, as it shows the high opinion formed by the good Grenadines on the fine qualities of the Vestal, who, in sight of that island and within *eight* days captured *three* slavers; and to judge by the one sent here, the others must be superior sailers. She is a beautiful model, a regular clipper.

"Our friend Jones is much elated by his success, as well he may be. I came here in the Vestal, being my third trip in her; and a more easy, comfortable ship there cannot be. The day after we left Bermuda, it blew as hard a gale of wind, with as tremendous a *cross* sea, as has ever been experienced; and so much so, that our *good friends and some of yours* were under apprehensions for us. We certainly experienced a heavy following sea; but not a chair was lashed, and we had a short and most comfortable passage. A better sea boat, or a more comfortable easy ship, does not exist.

"I am sorry that we were obliged to send Snake home; she is certainly a most beautiful model. Captain Bennett, who is now here, tells me that with the wind abeam, single-reefed topsails, carrying topgallant sails and courses, Snake beat him under topsails, main topsail square (lifting), going 9 and 6. I am afraid my friend Scott will question this. I sail on Wednesday for Bermuda, &c.

"THOS. USSHER."

[The late Rear-Admiral Sir T. Ussher died 1847.]

"To Sir W. Symonds."

No. 66. *From Captain W. Jones, R.N.*

"H.M.S. Vestal, 31st Dec., 1836.

"In former reports, and particularly that of the 1st January, 1836, I have stated at large my opinions of the sailing qualities of the Vestal, as compared with those of other ships. The experience of the last twelve months has confirmed and strengthened that opinion.

"It is with a view of showing the utility of this ship as a vessel of war, that the following Abstract of her services, during the year 1836, is respectfully submitted: —

"After being docked and refitted at Sheerness, in January, the Vestal returned to her station in the West Indies, arriving at Barbadoes the 4th March.

"April 14th. — Conveyed the Governor-General, Sir Lionel Smith, and his family, from Barbadoes to Grenada.

"April 26th. — Embarked at Barbadoes the 14th regiment, consisting of 412 officers, men, and followers, with their heavy baggage, and landed them at St. Christopher's on the 28th.

"May 1st. — Embarked at St. Kitt's the 67th regiment, consisting of 422 officers, men, and followers, with their heavy baggage, and landed them at Demerara on the 10th.

"May 14th. — Embarked at Demerara the 86th regiment, consisting of 472 officers, men, and followers, with their baggage, and landed them on the 17th at Barbadoes.

"By these removals of troops, much valuable time and a heavy expense in transports was saved to the Crown. In the beginning of June, the Vestal was employed on a mission to St. Thomas's and Porto Rico, by which thirty-five negro British subjects were redeemed from slavery.

"28th July to 3rd August. — Conveyed Commodore Superintendent, Sir Thos. Ussher, and his family, from Bermuda to Halifax, N. S.

"20th August. — Left Halifax to cruise off Grenada, when, on 20th September, captured the Negrinha, Portuguese schooner, with a cargo of 336 slaves.

"28th September. — Captured the Emprisa, Spanish brigantine, with a cargo of 434 slaves.

"Ditto. — Captured the Phœnix, Portuguese brigantine, with a cargo of 484 slaves.

"Being a total, within eight days, of three fast-sailing vessels, and 1254 slaves.

"The above statement is respectfully made with reference to the Vestal's qualities as an experimental ship, and to prove that she has been equal to the duties of the station during peace.

"Her sailing as a cruiser against the slave trade; her capacity for carrying troops; and the celerity with which she could bring an imposing appearance, whenever the protection of British interests required it, have all been shown within the last year. I have only to add my respectful opinion, that while this ship performs the duties of peace at less, or not greater expense than former built vessels of her tonnage, a very small addition to her complement of men would suffice to give her formidable efficiency for all the purposes of war.

"W. JONES, Captain."*

[Commodore W. Jones died 1846.]

No. 67. *From Captain T. W. Carter, R.N.*

"H.M.S. Vestal, Cove of Cork, 26th February, 1838.

"SIR,

"I have the honour to acquaint you, for the information of my Lords Commissioners of the Admiralty, with the arrival of Her Majesty's ship under my command, in Cork Harbour this morning. On the night of the 23rd and on the 24th, it blew hard from the southward. Yesterday we had light airs, with a heavy swell, and at about five o'clock this morning it came on to blow a gale from the south-eastward, with thick weather, which still continues.

"I have to enclose a report of the sailing of Her Majesty's ship under my command, with the Calliope and Electra †, on a form as directed by Captain Herbert of the Calliope.

"I am, Sir,

"Your most obedient humble servant,

"T. W. CARTER, Captain."

[The late Capt. T. W. Carter.]

"To the Secretary of the Admiralty, London."

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* *From Sir T. Hardy* (referring to an earlier report).

"Greenwich Hospital, March 28th, 1835.

"DEAR CAPTAIN SYMONDS,

"I most sincerely congratulate you on Captain Jones's report on Vestal's qualities; I think you should send a copy to Sir James Graham, and probably he would show it to Messrs. Hume and Young. I shall take care to make it known to all my frends.

"I remain, dear Captain Symonds,

"Yours very sincerely,

"T. M. HARDY."

† Calliope, 26, built, 1837, by Sir R. Seppings. Electra, 14, built, 1837, by Dr. Inman.

[Enclosure.]

"*General Remarks as to the Advantage gained by any one Ship over the others, during the run from Portsmouth to Plymouth, on 22nd February,* 1838.

"At 11, ships made sail together. Gannet buoy, S.E., 1 mile. Calliope W. by S. 1 mile, Electra W., half a mile.

"At 11·30, angle with Calliope, 2° 34.

"At 11·40, passed Electra at noon, the angle with Calliope, 3° 31.

"At 1·30, Calliope W.N.W., 2 cables. Electra astern.

"At 2, passed Calliope.

"At 2·10, the Calliope N. by W.

"At 2·20, Calliope N.E. by N., half a mile.

"At 3·30, Calliope N. by W., 2½ miles; Electra N.N.W., 2½ miles.

"At 5·30, Calliope N.N.E. Parted company per signal.

"The *Vestal headed both ships on all points.* It may be proper to remark, that having five months' provisions on board, and some field pieces, with the proportion of shot, stores, &c., the Vestal is about five inches deeper in the water than what has been considered her best trim.

"T. W. Carter, Captain.
"G. J. Hand, Senr. Lieut.
"R. Hall, Master."

[Referring to the above.]

"H.M.S. Calliope, at Plymouth Sound, Feb. 23rd, 1838.

"My Lord,

"The state of the weather did not permit of Captains Carter and Preston sending me their reports; but I directed them to be forwarded by the first opportunity to the Admiralty.

"I have the honour to be, My Lord,
"Your obedient servant,
"J. Herbert, Captain."

"To Admiral Lord A. Beauclerk, G.C.B.
"Commander-in-chief, &c. &c. &c., Plymouth."

No. 68. *From the Commander-in-Chief, Plymouth.*

"H.M.S. Royal Adelaide, in Hamoaze, 2nd March, 1838.

"Sir,

"In reference to your letter of the 27th ultimo, I here-

with transmit a further report from Captain Herbert, of the Calliope, on the trial of sailing between that ship, the Vestal, and the Electra. "I am, Sir,

"Your most obedient humble servant,

"A. BEAUCLERK, Admiral."

"Charles Wood, Esq., &c. &c. &c., Admiralty."

What Sail Set.	Inclination of the Calliope.	Remarks as to the Advantage gained by one Ship over the other during the run of 22 February.
Under all sail (top-gallant sails, larboard fore-top-mast studding-sail, courses fore-top-mast stay-sail).		h. m.
	—	1·0, Vestal and Electra astern 1 mile.
	6½°	1·30, Vestal bearing E.½N., Electra N.E. by E.
	9°	2·0, Vestal S.E.½S., Electra astern 2 miles.
Double-reefed top-sails, courses, fore-topmast stay-sail.	10°	2·20, Vestal S.S.W., Electra N.N.E.
	10°	2·30, Vestal S.W. ½S., Electra N. by E.¼E.
	11°	2·40, Vestal S.S.W., Electra, N. by W.
	12°	3·10, Vestal S.S.W.½W., Electra N.W. by N. ½N.
	12°	3·30, Vestal S.¾W., Electra N.W.
Double-reefed top-sails and fore-sail.	11°30′	3·45, Vestal S.½W., Electra N.W. by N.
	None.	5·30, Parted company; Vestal S.¾W., Electra E. by S. Throughout the day Vestal had the superiority on all points; but the Electra was beat by the Calliope and Vestal on all points.

"J. HERBERT, Captain.
"R. B. WATSON, Sen. Lieut.
"RICH. BROWNE, Master."

No. 69. *From Vice-Admiral the Hon. Sir C. Paget.*

"Bermuda, April 25th, 1838.

"MY DEAR SIR WILLIAM,

"I have got my flag flying in your delightful little Vestal, and I wish the higher powers, if they will not give me one of your ships of the line, would send the Vernon out to me. I would at all events try to do you every possible justice in that noble ship; and it would be a pleasure to be in her, after the pile-driving in the Cornwallis.*

"Yours most faithfully,

"CHARLES PAGET."

[Died 1839, in command of the North America and West India Station.]

"Sir W. Symonds."

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* Cornwallis, 72, built, 1813, at Bombay, of teak.

No. 70. *From Captain C. Talbot, R.N.*

"Vestal, Simon's Bay, 11th September, 1844.

"DEAR SIR WILLIAM,

"Before I proceed further from Old England, I cannot resist dropping you a line about your daughter Vestal.

"What was stated in the *United Service Gazette* about our beating two pilot boats (No. 486) up to Sandy Hook, is perfectly true, and created a great sensation at New York. She walks along to the astonishment of every one; 12·7 knots under royals, wind 2 points abaft the beam; 48½ in 4 hours, under same circumstances; 272 in 24 hours, without a struggle, under royals, wind the same; 444 in 39 hours, ditto. Under topgallant sails, double-reefed fore and mizen, and single-reefed maintopsails, wind abeam, 13·6 and 13 for six successive hours; and yet I am told here the Vestal class can't sail ! ! !

"Sir Thomas Pasley sent Baillie Hamilton home a track chart of our passage from Rio to Monte Video. I hope you have seen it.

"On our passage from Rio to Monte Video, the Vestal, Curaçoa, Racer, and Spider started together, and were desired to make the best of their way. The ships arrived as follows:—

	h. m.	
Vestal -	11·15 P.M.,	30th May.
Racer -	10·15 A.M.,	31st May.
Curaçoa -	11·15 A.M.,	2nd June.
Spider -	2·30 P.M.,	6th June.

"You must bear in mind that those three ships had the advantage of being stationers.

"I hope this long yarn will not bother you; but when I hear people assert that your ships do not sail, the only alternative is to state facts, and let them draw their own conclusions. I can truly state that I have never travelled so fast before.

"Believe me to be,

"Dear Sir William,

"Faithfully yours,

"CHARLES TALBOT."

[Now Rear-Admiral C. Talbot.]

"Sir William Symonds, &c. &c. &c."

H.M.S. PIQUE, 40 *guns*.

Built, 1834, at Plymouth. Tonnage 1633.

No. 71. *From Capt. the Hon. H. J. Rous, R.N.*

"38, South Street, Park Lane,
"Saturday evening.

"DEAR SYMONDS,

"I was sorry to hear last week that you were obliged to go out of town to recruit your health. This morning I have been to the Admiralty, and Sir James has promised me a ship, naming probably the Cleopatra.* I want the Pique; for though I should be very proud to command any of your ships, and the Cleopatra is as different as light from darkness to my old Rainbow, yet I do not like to stick fast to a sixth-rate. If you can assist me to the Pique, I am confident you will lend me a hand. It is better for me to have her than some old fogy who won't care a d—— about her. Hoping to meet soon,

"Believe me,

"Very truly yours,

"H. J. ROUS."

[Now Rear-Admiral Hon. H. J. Rous.]

"Capt. Symonds, R.N."

No. 72. *From the same.*

"March, 1835.

"MY DEAR SYMONDS,

"Pique, after knocking about the bay for three weeks, including a close blockade of eleven days off Santander, experiencing a succession of gales, straining her rigging, and punishing her sails in that eternal heavy N.W. sea, found Castor† and Ringdove outside, on the afternoon of 3rd March, both with copper cleaned, new sails, everything right. I had pulled up 24 inches main rigging, 20 inches mainstays at sea, altogether 35 inches, since we left Plymouth; consequently, not a mast was properly in its place, and our bobstays being slack without a remedy, the bowsprit could not be secured. We had anchored on the 19th February in the outer bay of Santander. Parted from 95 fathoms chain, and hove up a second anchor

* Built 1835.

† Castor, 36, built, 1832, by Sir R. Seppings.

without flukes; bad iron. Our trim was on 3rd March, by computation, 19 feet forward, 20 feet 3 inches aft; 13 weeks' provisions; 145 tons water, having filled 46 tons salt.

"First day, light breeze, which freshened up gradually; made sail together on a wind; Castor forereached; Ringdove weathered on both: and although we had the excuses of splitting jibstay block, carrying away jibstay, topgallant-sheets, and reefing once oftener, owing to commencing with first reefs out, we had decidedly the worst of it; Ringdove very much the best. We carried a slack helm, and I brought my after guns forward to mainmast without success. — Second day, wind light, northerly, with a heavy swell, steering west. Both again beat us at the rate of 1 mile per hour for the first three hours; we then began trimming aft, and drew upon them.

"Third day, eight foremost guns aft, hammocks, bags, shot in the steerage. Castor and Pique made sail together; blowing fresh against a heavy sea; double-reefed topsails. Pique a foretopgallant sail more than Castor, who carried a large jib, which we did not possess; a new jib blowing away just before starting, and the tack of her second big jib having been carried away that morning. We ran 40 miles without the slightest advantage within a quarter of a mile of one another, going 10 knots close to the wind in squalls. — Fourth day, a heavy gale.

"Fifth day, started 21 tons from fore hold; found the ship improve, and, for the first time, took her lead under easy canvas. — Sixth day, a very heavy gale. — Seventh day, 12·40 P.M., ran down under Castor's lee-quarter, and crossed her to windward, a heavy sea running. — Eighth day, blowing strong; made sail under treble-reefed topsails for 40 minutes. Castor sprung maintopsail-yard; but during that time she had forereached. Started 25 tons more water in fore part main hold, got shot-cases aft, cleared out store-rooms forward. Made sail again at 4·30 P.M. Pique, in an hour, from half a mile Castor's lee-quarter, passed her to windward, and forereached 1 mile per hour. — Ninth day, 9·30 A.M., made sail together, blowing strong against a hollow head sea. Pique beat Castor at the rate of 1½ mile per hour. 11, Castor recalled us.

"Tenth day, made sail at 3 P.M.; moderate weather, smoother water. Sent my four main-deck guns forward, hammocks and bags. Castor rather forereached on Pique; this day a jury jib-boom, could only spread a small jib.—Eleventh day, owing to splitting a maintopsail, did not join Castor till 3·30. P.M. Got my guns aft again. 4·30, Castor forereached from our weather-quarter alongside. Pique backed mizen-topsail, went under her stern, and in half an hour was half a mile on her weather-beam. During this time all her watch were aft on the quarter-deck. We were

carrying only a small jib. The following morning we arrived at Corunna; found Pique's trim 18 feet forward, 21 feet aft.

"Sailed again on the 24th, with only three weeks' provisions, 93 tons water; all the ballast removed from main hold to after hold and spirit room. Draught 18 feet 2 inches forward, 21 feet aft; the spare anchors taking the place of the bowers; no stores; a deficiency of 50 tons in fore-hold and fore part main-hold.

"*Second cruise.*—First day, no trial; we carried away the martingale iron hoop round jib-boom end, main tack.—Second day, two aft quarter-deck guns at capstern, two forecastle bow guns on gangways, two foremast main-deck guns abreast mainmast; 23 tons more water in main-hold. Weathered and forereached on Castor. 12·10, she bore up, wind abeam, for three hours, but without a result. Pique split a main-topgallant sail, carried away jibstay and halyard foretopsail-sheet.—Third day, strong breezes, and a short, heavy, head sea; 5 tons more water on board. Ran by the Castor at the rate of 1 mile per hour, who telegraphed, 'Castor too deep; six months' provisions; not fair trial.' She was plunging her nose under: Pique quite dry and easy. I telegraphed back, 'Pique flying light; three weeks' provisions; can you send me sand and salt water?' knowing he had, 30 tons on board, extra ballast. The following morning parted company.

"My opinion of Pique is, that her forte is in a heavy gale against a mountainous sea, on a lee shore; that she ought never to be less than 2 feet 7 inches by the stern, and, as she lightens bodily, let her come down to 3 feet; that she is a remarkable easy ship under that trim, especially in carrying sail; under small canvas she rolls quick to windward. You will hear that she shipped a heavy sea off Santander. So she did; but it was a remarkable sort of sea, and she was then only 13 inches by the stern. That she missed stays, when Castor tacked. So she did; but it was through the incapacity of the officer, and no fault of the ship. Again, Castor missed stays going 6 knots; but it was no fault of Castor. I have stayed Pique in light winds against a heavy sea, when I should never have dreamt of putting my helm down in any other ship. Now my wish is to get rid of 22 tons ballast, shift rope for chain gammoning, place the coal-hole amidships, magazine forward. Give me a 4th-rate's mainyard, maintopmast, &c., for no ship ever went to sea more undermasted than Pique; and no man in the world but yourself would expect a ship of 1650 tons to be a flyer with the canvas belonging to a ship of 1100 tons.

"The Ringdove is wonderful; I never saw a brig beat a large frigate in bad weather as she beat the Castor. We carried away two

jib-booms, one of them rotten, owing to the slackness of the bob-stays, and a heavy chain martingale working against the heave of the bowsprit. The clews of all the fore, main, and mizen topsails have been carried away, roping dry-rotted, some of them made in 1823 and 1824, and two jibs split to pieces; they did not allow enough luff to equalise the strain, owing to the round of the foot. We imagine the straight leeches make the square sails bag, and the fault increases as the sail wears, and brings a greater strain on the clews.

"Your topgallant masts are not worth a d——; no diameter. Castor spreads more canvas in her topsails, larger topgallant sails, and has 3 feet more hoist in her double-reefed topsails. With respect to Plymouth iron, we have carried away one main-chain plate, iron hoop martingale, bumpkin brace-bolt, several eye-bolts, hooks, one chain cable, one anchor, centre-bars not welded. Our running rigging very bad; not a coil of rope to trust to, and scarcely one serviceable sail. The planking of the main deck has shrunk. The carpenter says it arrived when the ship was building, and was never seasoned. Massey's pumps are failures. Chain futtocks answer well, with liquid leather in the wake of the shrouds. I like chain-topsail sheets.

"Yours ever,

"Capt. Symonds." "H. J. Rous."

No. 73. *From the same.*

"Pique, Portsmouth, 13th October, 1835.

"My dear Symonds,

"Your beautiful ship has had the d——st thumping that ever was stood by wood and iron. A strong current swept us in on the shore of Labrador, in the Belleisle passage, and we laid on the rocks, beating our souls out for 10½ mortal hours. Luckily the masts stood, and everything else, but the forefoot and keel, which will be found wanting.

"Three days after we left the land we lost our rudder, the pintles of which must have been broken by the rocks, and we steered her home by 15 fathoms cable. The rudder you sent a description of did not answer in a heavy sea, neither did the Pakenham rudder. We found nothing like the main and cross-jack braces. Twice only, blowing hard with a heavy sea, did she get out of our hands, when we hove her to with her head the wrong way. The Chief Justice behaved very well, and was very active during our struggle for life; it was indeed a struggle. I know of no other ship that would have stood such a wrangle.

"We are all well on board, and understand the art of pumping.

"Ever truly yours,

"Capt. Symonds." "H. J. Rous."

No. 74. *From the same.*

"October 1836.

"After the obstinacy and perverseness I have shown on the subject of trim, I now confess, in justice to yourself, that 14 in. by the stern has turned out to be our best sailing trim, with the masts standing according to your plan, in smooth water. In the first trials off the wind, Inconstant * had the advantage; we carried one turn three spokes weather helm, wind one point free.

"The second day, a heavy N.W. swell on our lee quarter, wind quarterly, made the ship steer badly, and I damaged myself by trying to improve (shifting guns and weights).—The third trial, October 27th, wind nearly aft, water smooth, we cleared her 1800 yards in four hours.—On the 29th, owing to a smash of spars the day before, when we commenced by out-carrying Inconstant, the Admiral tried us with double-reefed topsails and topgallant sails, when we could easily have carried another reef; the consequence of this was, a slight advantage in favour of Inconstant, and I made it worse by running two main-deck guns forward during the last hour.

"On the 31st, Inconstant and Pique started together, Vanguard and Pantaloon on our weather beam; a fine breeze, topgallant sails over single-reefed topsails, against a short chop of a sea. For the first two hours, Vanguard walked away from all; but the water smoothing down as we approached the land, we first disposed of Inconstant, 2000 yards on our lee beam, by 1 o'clock; the Vanguard then a mile on our weather beam. We luffed up for her and crossed her lee bow, and went away ahead and to windward, having quite as good of it as the Pantaloon. Trim computed, 20ft. 6in. aft, 19ft. 4in. forward; 2 aft quarter-deck guns at the entrance port, 2 cabin main-deck guns abreast fore bitts; hammocks with 4 shot in each hanging up; ship's company in lower deck between steerage and fore-hatchway.

"Now the ship lightens, I have them all as safe as the Bank. Inconstant is very fast off the wind, but neither she nor Pique (in her present trim) can beat the Vanguard against a head sea, whatever capers we may cut over her in smooth water; we have both the same fault, a broad bow to stop us in a sea way. I have seen this ship occasionally perform such brilliant things at her present trim, and with her masts aft and 3ft. by the stern, that I must form this conclusion,—we have not yet arrived at her best; some intermediate trim must be found to answer.

* Inconstant, 36; built, 1836, by Capt. Hayes.

With respect to trimming a ship during the time of trial, I discover nothing but that the very act of moving any great weight destroys her sailing at the time: in short I know nothing, and of course can make no further experiment till I hear from you, except lightening the ship from the two extremes and hoisting in one of my quarter boats.

"H. J. Rous."

"To Capt. Symonds."

No. 75. *From Captain W. B. Mends, R.N.*

"Talavera, Lisbon, 11th May, 1837.

"My dear Sir,

"Our experimental cruise, which commenced on the 22nd ult., terminated on the 8th inst. in favour of Inconstant.

"As the official reports contain all the particulars, I have only to say, in addition, what my opinion is as to the *cause* of the very great and obvious difference between the two ships, Pique being decidedly superior to her opponent in *power* and capacity.

"In the first place, then, Pique is manifestly *undermasted* in proportion to Inconstant, with a much larger body to be propelled. She does not feel her canvas in anything like the same way as Inconstant does, in moderate and fine weather; and only approaches nearer to her opponent in this particular, when it blows half a gale of wind; and then, it appears to me, she has not strength enough in masts and yards to bear the pressure which the ship can so well bear; and hence something or other is always giving way. Her motions in a heavy head sea appeared to us quite as easy as the Inconstant's, and she evidently could fight all her guns at such times without inconvenience, when Inconstant would be so overpowered by her canvas as not to be able *to do so at all.*

"I am inclined to the opinion, that if Pique carried the weight in her hold more in the centre, or amidships, her uneasy pitching and other motions would be *materially*, if not altogether obviated; upon the whole she is generally considered to be the finest ship of the two, *if made the most of*, as Inconstant *appears to be.*

"Pique being ordered home in consequence of her fore-mast being found badly sprung, it is possible that she may be tried again under other circumstances. Our Master, who has just returned from inspecting her rigging, &c., by the Admiral's order, reports that the rigging is not in the least strained or otherwise injured; and also that the spring in the foremast, which is just below the trussel trees, and extends to the fore-

yard, was evidently occasioned by a violent *twist*, he thinks, by bracing the fore-yard up, and certainly not by carrying sail.

"However, on the 2nd inst., when the frigates were in chase of Talavera, they did carry so much more sail than *she* could, that I fully expected something of the kind; and to avoid it, Captain Pring tells me, that in the Inconstant they would not brace so sharp up.

"I sincerely hope that my reports will give satisfaction to the Board, as I have paid the most particular attention to every circumstance, and reported them faithfully.

"Believe me to be,
"Very faithfully and respectfully yours,
"W. B. MENDS."

[Now Vice-Admiral W. B. Mends.]

"Vice-Admiral Sir Chas. Adam, K.C.B.
"&c. &c., &c."

No. 76. *From* —— ——. [Writer not identified.]

"Cintra, May 26th, 1837.

"MY DEAR SIR,

"It unluckily happened that the packet arriving as I left Lisbon, I was prevented from thanking you for your goodness in sending me a packet, for which I am extremely obliged to you. The Pique had just returned from her trial, unsuccessful as a racehorse, but triumphant as a man-of-war; in which capacity nobody seemed to have the least doubt of her superiority.

"I am glad to hear that the plan of placing her magazine amidships is likely to be abandoned, as every body seems to agree in condemning its present position. Your account of the dates of the building the two frigates explained the difference of their relative sizes as compared to their masts, which was an enigma to me. The admiration that the Pique excited was unanimous, particularly when compared with the Inconstant, which was very much praised before her arrival. To an ignorant eye, like mine, there was no comparison in the beauty and apparent buoyancy of the two frigates. I heard that a prophecy Sir W. Gage made, on seeing the lowness of the cabin windows of the Inconstant, was fulfilled by the deadlights being stove in when there was scarcely any sea, the effects of which Captain Pring still rues in his walks, as he was lamed by the broken glass.

"Yours very sincerely,
"L. H. D. W—N."

No. 77. *From Captain E. Boxer, R.N.*

"H.M.S. Pique, Plymouth, 29th Sept., 1837.

"My Lord,

"In pursuance of orders from the Lords Commissioners of the Admiralty to report to you, on my arrival at Plymouth, the trial of sailing of H.M.S. Pique, under my command, with the United States frigate Independence, Commodore Nicolson, for their Lordships' information; I have the honour to inform you that at 2·30 yesterday, both ships weighed and made sail together from Spithead,—the Independence, two cables' length on the Pique's weather beam. In three tacks, weathered her one cable's length; after making another tack, stood out on the larboard tack until five, at which time the Pique had weathered her 1½ mile dead to windward, she bearing W. by N.; shortened sail. At 5·15., made all sail before the winds, the Independence S.W. ½ W. half a mile. After seven hours' trial, the advantage was decidedly in our favour, having brought her to bear S.S.E. about 4 miles, running on an average 9½ knots. When she appeared to alter her course more to the southward, we altered ours for this port. At daylight she bore S.S.E. with the lower yards down.

"I have the honour to be, &c.

"Edward Boxer, Captain." *

[The late Rear-Admiral Boxer.]

"To Admiral Lord A. Beauclerk."

No. 78. *From Captain E. Boxer, R.N.*

"Pique, 1837.

"My dear Symonds,

"I have only time to say that I am off for the north coast of Spain, with 1050 bags of bread and about 22 tons of stores, all very comfortably stowed away; and shall again sail 12 inches by the stern, only about 4 inches deeper, which I am sure she will not mind. I wish you could only see her, and you would hardly think we had anything in her beyond her establishment. You, no doubt, will have heard from Portsmouth of my

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* *Extract of Note from Admiral Sir T. Hardy, Bart.*

"Greenwich Hospital, 30th Sept., 1837.

". . . . I am very much pleased by the account you have sent me of the Pique; and I own I have every possible confidence in Boxer's good judgment."

beating the American, as it must have been visible to every one there.

"We made sail together about 2·30 P.M., under all sail, on a wind, about two cables on the lee beam of the Independence. In three tacks we weathered her about a cable's length, and after another tack stood out upon the larboard tack for two hours; when your friend, the Commodore, was 1½ mile dead to leeward, and it was astonishing to see how we weathered on him. At 5·30, bore up by signal, and after seven hours' trial, we altered him from S.W. ½ W. to S.S.E. 3 miles, which I was much pleased with, as I had my doubts about our beating him off the wind; but your ship worked, stood up, and steered beautifully.

"Indeed, my dear Symonds, nothing could have behaved better, and I have no doubt opinions will very soon change about her.

"Yours most sincerely,

"E. BOXER."

"Sir W. Symonds."

No. 79. *From Mr. J. K. Martyn, Master, R N.*

[Extract.]

"H.M.S. Pique, Halifax, March 26, 1838.

"We arrived here on the 5th of March, after one of the most boisterous and troublesome passages ever made, at least that I ever made. We were forty-one days from Cork, but weathered all the gales and seas beautifully. Never was there a finer ship, nor one that performed a passage with so much ease and safety. She certainly is a splendid ship, and has everything that is requisite to make an efficient man-of-war.

"JOSH. K. MARTYN, Master."

No. 80. *From Captain E. Boxer, R.N.*

"H.M.S. Pique, Halifax, March 26, 1838.

"MY DEAR SYMONDS,

"You will, I am quite sure, be all anxiety to hear of us, and a little uneasy before you receive this as to the cause of delay in not arriving at Plymouth. In the first place, we had a very long passage, forty-one days; and on our arrival the news from Canada decided the Governor to detain me to take the 93rd Regiment to Quebec. Sir John Colborn had written here for more troops; it was too late in the season to send them over land; and the news yesterday from Canada shows clearly that

all is not over. It is, therefore, of the greatest importance that troops should be sent there as soon as possible, and I can sail immediately the St. Lawrence opens, which is expected very early this year. He has done quite right in detaining me, as it is impossible to say when the ships from England will be here, having no accounts that any had sailed.

"Our long and tempestuous passage (I never experienced such a succession of heavy gales) gives me an opportunity of reporting my opinion on the merits of Pique, and I have much pleasure in informing you that I never was in a ship that behaved more beautifully; indeed, she appears to me perfect. It is impossible that any ship should lie-to better; and I was compelled from the violence of the wind, several times to take in my main topsail. For two days it blew so hard that we could show nothing but the main staysail, trysail, and I was even afraid of them; but what is most admirable in her, she is almost always under command even with that sail. There is not a different opinion as to her merits in a gale, and I may say, in every other point.

"All say she is much, very much, improved; and as a great proof of her good qualities, we arrived here without a defect; not even a strain anywhere, and our rigging perfect; so that I was ready to turn my head homewards without a moment's delay. This says a great deal for a ship that has hardly been out of a gale for nearly a month.

"She is open to the visits of every one, and all admire her. Pring had a quick passage, having carried the easterly wind 1300 miles, which left me, after I had run 200; and he, no doubt, had a good run home. I was in great hopes I should have met him here, but I hope I shall have that pleasure some day or other. I am sorry to say that the Atlantic sea makes no difference with the copper; on my arrival it was just as bad as ever. But should I go to the St. Lawrence, which will be the case unless some ship arrives to take my place, the fresh water will, I hope, clear it, for I believe it is fresh at Quebec.

"We beat out of Cork in high style, blowing half a gale of wind, with a heavy sea; but nothing prevents her staying; we are always, under every circumstance, sure of her. All I want is now to try her scudding, which I hope I shall have an opportunity of doing on my passage home. I think you may look out for me the middle of May, unless there is an appearance of war with the Americans, when it is likely the Commander-in-Chief would keep me. But I don't think that is likely, although our frontier governors, it appears to me, by their boasting, will throw difficulties in the way, in the present state of excitement, to an

amicable settlement; which it must be the interest of both parties to effect.

"I hope this will find you quite well, and remain,

"My dear Symonds, very sincerely yours,

"EDWARD BOXER."

"Sir W. Symonds."

No. 81. *From the same.*

"H.M.S. Pique, April 1, 1838.

"MY DEAR SYMONDS,

"I wrote you by the packet, which I think will have a good passage, having sailed with a fair wind; we have had northerly winds ever since. The day before yesterday it blew very hard, so that I am in hopes you will soon hear what has been the cause of our not making our appearance in England. I am again full of troops; altogether, men, women, and children, about 500; and am now weighing for St. John's, New Brunswick. I return here immediately for the 93rd Regiment, or the detachment that came out in Hercules. Vestal has also arrived, having got here a day before Hercules. He goes to Bermuda, unless the Canada mail, which is expected, calls for more troops for Canada; that is, more than I can take.

"I find by the papers that they won't let Pique alone; however we stand high here also with the troops that came with us, who are grateful for our care and kindness to them. The poor fellow who fell down the hatchway was an accident that might have happened anywhere; indeed, it is astonishing that so few accidents happen, considering what helpless fellows they are on board ship. I assure you we stand No. 1 with them. When I consider what a very stormy passage we had, and that our only defect was one half port stove in, it speaks volumes. Our arrangements could not have been bad, when on our arrival we had but ten men sick, and they only with little bruises.

"Now, my dear Symonds, yours very sincerely,

"EDWARD BOXER."

"Sir W. Symonds."

No. 82. *From Captain J. Toup Nicolas, R.N.*

"Hercules, becalmed off Plymouth, April 21, 1838.

"MY DEAR SIR WILLIAM,

"On our arrival from Halifax, I hasten to tell you that your beautiful Pique was the admiration of every one there. Capt. Boxer speaks of her with enthusiasm; and all her good qualities, which he states she possesses, he very liberally attri-

butes *solely to you*, as he says he has only followed *closely* to your suggestions in every way. The masts stand beautifully, and Captain Boxer told me that he had placed them precisely as you had desired they should be; indeed, he attributes all her merits to you only, and he deems her perfection.

"As to carrying troops, Boxer seems to like the thing rather than otherwise, as he knows all the soldiers at Halifax; and, as he will have a freight, they say, to Quebec, that will, I hope, give him from 300*l.* to 500*l.*, he is the more reconciled to the job of carrying on 400 men to Canada from Halifax.

"Indeed, the Pique can far *better* stow that number than we can; for, with our crew, when they cannot (in winter) remain on the main deck, even 300 is more than we can carry, without the risk of typhus fever and other diseases. As it was, for many days we had upwards of 120 on the sick list; and our own sick list was never under 40. Sometimes we had as many as 75, though I took every precaution that human means could devise; and at length I got it under by standing to the southward, into fine weather.*

"J. T. NICOLAS."

"To Sir W. Symonds." [Rear-Admiral J. T. Nicolas died 1851.]

No. 83. *From the same.*

"The Hercules, Plymouth, July 27th, 1838.

"MY DEAR SIR WILLIAM,

"Your beautiful Pique has been the admiration of Lord Durham, and all around him, as I heard them myself express; and Colonel Grey is enthusiastic in her praise, as were also all the military officers who went in her from Halifax to Quebec. One of these, Major Estcourt, of the 43rd, wrote to me on the subject. He says 'Of the Pique it is impossible to say too much. Her storing is quite extraordinary; her capacity is far greater than Hercules' for baggage and troops; and she stowed our men with much more ease, though all her guns were in their places. I do hope that justice will be done to the ill-used Pique upon her return to England with unstrained rigging, and in good condition for six months, if need be." This is a soldier's opinion, but one who has been at sea, as Major Estcourt was one of the Euphrates expedition. It is indeed most true that Pique can stow 600 men far better than any 74, and this I have told Sir W. Parker.

"T. NICOLAS."

"Sir W. Symonds."

* The Hercules was a 72, built 1815.

No. 84. *From Capt. E. Boxer, R.N.*

"Pique, Halifax, April 23, 1838.

"My dear Symonds,

"Since I last wrote to you I have had a short trip to St. John's, with Pique well stowed with troops, women, and children. We are now off for Quebec with about 500 more, when I shall turn my head homewards, and on my arrival in England, I shall, I hope, be able to get to town to see you. I am very anxious to have a little talk with you about Pique, which, since I last wrote to you, has shown clearly that even four or five inches lighter than 19·3 ft. and 20·3 ft., she stands up as well as ever, and I think improves in sailing. I tried her on my return from St. John in that trim, having only 90 tons of water, and one month's provisions on board when I left that place. All I now want is a trial, scudding, which I sincerely hope I may have on my return home. I think you may look out for me about the end of May.

"In great haste, yours very sincerely,

"Edward Boxer."

"Sir W. Symonds."

No. 85. *From the same.*

"H.M.S. Pique, Quebec, June 1st, 1838.

"My dear Symonds,

"I was in hopes I should have been in England ere this, when I last wrote you; but I got so completely jammed up in the ice that I was not able to move for seventeen days out of Arachat harbour. I was fortunate in getting there; otherwise I should have been fast in it outside, and my ship, no doubt, much injured. I have got safe here without the least damage, although a little annoyed to find the ships from England here before me; but the easterly gales opened them a passage to the eastward, and blocked me completely up, so that for seventeen days we could not see water from the highest hills.

"You will, I am sure, be pleased to hear that I am now alongside of Inconstant; and I think, before we part, we shall have another trial. It shall not be my fault if we do not, and as the troops are now nearly all out, I think the Admiral will keep me. I am detained till we hear from him. What shameful reports there have been about us, which, no doubt, have very much distressed our families, and without the least cause. Never did any ship come out of a succession of heavy gales with so little damage as Pique did. On our arrival we

had not a defect; and I have not even now had occasion to set up our rigging, nor have I carried away or sprung anything since I commanded her; and I have not spared her on any occasion. She is a splendid man-of-war, and I am quite sure equal to any of your ships; I trust she will be found equal [in speed] to Inconstant on our next trial. In every other way our superiority is very great, which all acknowledge, even Pring himself. But it is really shameful to see what advantage has been taken over you. I have had their main-deck carriages measured, and find they are nearly four inches lower than ours; his port-sills six inches lower; so that our guns stand four inches higher than his. He has likewise no cross-pieces to his bitts, — which is a great weight taken off that deck, — and with his 25-cwt. guns on the quarter deck, it gives him a great advantage over us.

"However, I don't fear him, and shall be delighted when I get at sea. Our detention here will ensure my copper being clean, which I am satisfied will make a great difference in our sailing. Even before I left Portsmouth Harbour, the copper had begun to foul, so that without this god-send, in coming here, I never could have been on equal terms with him. I find he got knocked about very much in going home; but he is too low aft to scud; and whenever he attempts it in a heavy sea he will always get pooped. The papers mention that she ran 310 miles in 24 hours, which is not true. My Master examined his log, and found his run, on that, only 283 miles, one day; the following day they had no observation; on the third they had, and they were then astern of the reckoning, so that they had no right whatever to give her that run.

"When their log is sent home I hope you will get a copy of the run; for the system appears to be to depreciate the qualities of Pique and extol those of our opponent. One thing, I think, I have proved, that Pique is a good foul-weather ship; and that she is equal to a line-of-battle ship in moving troops, having in three trips carried 1180 soldiers and 200 women and children, with an immense quantity of baggage, and, all acknowledge, with great comfort and without any sickness. Indeed, every man hung up in his hammock, which, I think, my dear Symonds, speaks volumes for the good qualities of your ship. I am detained by Lord Durham, until he hears from the Admiral, who, I suppose, will keep me on the station. I should have left ten days back had the wind allowed me. Sincerely hoping that you are now quite recovered,

"I remain, most sincerely yours,

"EDWARD BOXER."

"Sir W. Symonds."

No. 86. *From J. Edye, Esq.*

"My dear Sir,

"The Pique is again with us—in twenty days from Quebec, and the contents of this paper (which is a spare copy) will show you that she is not quite torn to pieces.

"Your faithful servant,

"J. Edye."

"To Sir W. Symonds."

[Enclosure.] *List of the defects of H.M.S. Pique.*

"Portsmouth, 16th July, 1838.

"The outside berthing of the forecastle hammock-nettings being split by firing the forecastle guns, plank and nails are required for repairing the same.

"The scuppers that conduct the water from the upper to the main deck require to be larger.

"The pipes of the wash-deck pump and pump of the tanks require to be new.

"One of the boilers defective, and two of the cocks want replacing with new.

"Two water-closets require repair.

"The bill board of the small bower anchor requires a fresh iron lining.

"Fifteen panes of glass broken in the cabin, and gunroom skylights require replacing with new.

"The galley overhead partly requires tinning afresh.

"Fifteen leading blocks round the fore and mainmast require to be unshipped and replaced with new.

"The lead pipes which the main braces lead through are worn out, and require replacing with new.

"Bitt slips for chain cables lost, and require replacing.

"We hereby certify that the defects mentioned above can partly be made good by the ship's artificers.

"Edward Boxer, Captain.
"D. Curry, Senior Lieutenant.
"J. K. Martyn, Master.
"J. Sutton, Carpenter."

No. 87. *From Admiral Superintendent Bouverie.*

"Portsmouth, July 21st, 1838.

"My dear Symonds,

"I have only time to write you one line, but I am anxious to let you know that nothing can be more satisfactory

than the inspection of the Pique. It is impossible that the hull of any ship can be in more perfect order. She has no defects, and not the least symptoms of straining or injury of any kind, from all the bad weather she has been exposed to in December. I have given to Boxer the Inconstant's defects of February last, which you sent me. I hope you will not think I have done wrong.*

"D. P. BOUVERIE."

[Admiral the Hon. D. P. Bouverie died 1850.]

"Sir W. Symonds."

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* "*Defects of H.M.S. Inconstant.*

"23rd February, 1838.

"Ship's outside requires to be caulked and repaired, seams being bare of pitch.

"Quickwork of quarter-deck and forecastle requires caulking, being leaky.

"Main-deck waterways, with six seams out, require caulking, being leaky.

"Spirketting, with waterways and flat of lower-deck cabins, require caulking, work being much shrunk.

"Clamp and quickwork in captain's cabin require caulking, work being much shrunk.

"New starboard waist hammock netting with stanchions and end boards required, others washed away by sea.

"Copper required on stern post, the other worn out by rudder.

"Quarter-deck half ports required, others washed away.

"Iron davits for quarter boats require repair, others broken by sea, and to be made stronger.

"Carved work required for figure-head, other washed away by sea.

"Middle-head rail required, other broken by sea.

"Seats in head required, others washed away by sea.

"Iron plates required for ends of head ledges in head; not being sufficiently secured, to resist the sea, as they now are.

"Head berthing with shutters required, others washed away by sea.

"Head port door required, other washed away by sea.

"Fore-tack blocks require new sheaves, others much worn.

"Starboard round-house shoot required, other washed away.

"Manger scupper flap required, other washed away.

"Larboard forecastle hammock berthing requires repair.

"A new set of main-deck upper deadlight parts required, others not sufficiently strong to resist the sea.

"New stern deadlight ports required, and to be made much stronger; not sufficiently strong as they now are, to resist the sea.

"New stern sashes required, others stove in by sea.

"Quarter berthing requires examining, having been struck by sea, and to be strengthened, too weak as they now are.

No. 88. *From Admiral Sir. P. Durham, Bart.*

"Britannia, in Portsmouth Harbour, 24th July, 1838.

"SIR,

"In compliance with the desire of the Lords Commissioners of the Admiralty, conveyed to me in your letter of the 21st instant, I transmit herewith, for their Lordships' information, a report from Captain Boxer, of the sailing and other qualities of the Pique.

"I am, Sir, &c.

"P. C. H. DURHAM, Admiral."

"To the Secretary of the Admiralty."

[Enclosure.] *From Captain E. Boxer, R.N.*

"H.M.S. Pique, Portsmouth, 23rd July, 1838.

"SIR,

"In compliance with your directions to furnish you with a detailed report of the qualities of Her Majesty's ship under

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"Glass required in larboard quarter sash, being broken by sea.

"Jacob ladder stanchions require repair, and to be strengthened.

"Main-brace iron-spider leg requires repair, being much bent by strain.

"Glass in octagon skylight, with quarter and main deck skylights required, others broken by accident, having none of the size on board.

"Rollers required to be fitted for main-deck ports, and hemp messenger, others washed away by sea.

"Scupper flap hinge bolts require examining, bolts much worn.

"Dead eye required for mizzen rigging, other washed away by sea.

"New forks required for lower deck scuttles, others broken.

"Cook's coppers require examining, being much worn.

"Lift-pump for fresh water requires repair with pipes.

"Main and lower deck ladders require repair, being much worn.

"Sampson's posts, with strong backs require fitting, others washed away by sea.

"Spars require to be recoppered and sheaved, others worn out.

"Three boats require to be repaired at Dockyard.

"Tin required to line the beams in galley, other worn out.

"Lead required for covering gammoning of bowsprit, other washed away by sea.

"Masts and spars require to be examined.

"DAN. PRING, Captain.

"D. M'CRIGHT, Master.

"JOSEPH PINK, Carpenter."

my command, for the information of the Lords Commissioners of the Admiralty, as to her stability under a press of sail, her capacity for stowing provisions and berthing men, how she works under every variety of weather, how she behaves in a heavy sea, and other remarks or observations I may have to make in comparison with any other ships of war:—

"I have the honour to inform you, in reply, that from the services the Pique has had to perform, a fair opportunity has been afforded of fairly reporting my opinion on them.

"1. *Working to Windward against a Head Sea.*—On the 23rd December last, blowing very strong from the southward, I left Plymouth Sound for St. Sebastian, and, being aware of their Lordships' anxiety for the arrival of the Pique at that port, I pressed the ship very much against very strong south-west winds, and arrived there on the 5th January. During that time I was enabled fairly to judge of her qualities in beating against a heavy head sea, which she did without the least working to her mast or rigging, or the least appearance of strain to her hull; and it is impossible a ship could have behaved better.

"2. *Lying-to in a Gale of Wind.*—On the 23rd January, sailed from Cork with the head-quarter division of the 93rd regiment, amounting to 323 men, 50 women and children, the heavy baggage of that division, and a great quantity of other stores belonging to the regiment, with 170 tons of water, and seven months' provisions, for Halifax. Arrived there on the 5th of March, after encountering, for twenty-five days, between the Western Islands and the Banks of Newfoundland, a succession of the heaviest gales from the south-west and north-west (with a heavy cross sea) I have ever experienced during my servitude; particularly on the 12th and 13th February, when it blew a perfect hurricane, during which time it was impossible for any ship to behave better; and reached Halifax without a defect. I am, therefore, decidedly of opinion that she is a very easy ship lying-to in a gale of wind, being buoyant in the extreme and perfectly dry, having shipped only one sea during those gales, which did her no injury.

"3. *Stability.*—It is impossible for me to say too much in her favour under this head, having had many opportunities of trying her; particularly on my return from St. John, N. B., to Halifax, with a fortnight's provisions on board, and not more than 90 tons of water; under single-reefed topsails, courses, jib, and spanker, it blowing strong, and with the weather leeches lifting, she only heeled 7 degrees. Also, in beating into Spithead, on the 16th instant, with only three weeks' provisions and about 80 tons of water, all sail set except royals, she did not heel more

than 6 degrees, though blowing fresh. I was also enabled to judge of her stability, in comparison with H.M.S. Wellesley, in beating into Plymouth Sound, on the 29th September last; blowing strong, with royals and all sail set, her inclination was only 7 degrees; when that ship, with only double-reefed topsails, jib and spanker, was heeling 14 degrees. Under every circumstance her stability is extraordinary; indeed, I never saw a ship stand up like her.*

"4. *Working.*—Particularly quick and sure; she never having missed stays during the time I have had the honour of commanding her. Especially in beating out of Cork Harbour, when blowing very strong; and through the Gut of Canso; and many times out of Plymouth Sound; which enables me to give a decided opinion as to her superior qualities under this head. She also wears quick.

"5. *Sailing.*—Although I have had no opportunity of trying, except with the American frigate, Independence, which I beat very much, on a wind, and had the advantage of, going free, I am decidedly of opinion she is a very fast ship.

"6. *Stowage.*—One hundred and fifty tons of water, and seven months' provisions under hatches, with six and a half months' bread in bags in the bread room; and if her magazine were placed in the same situation as other ships, which in my opinion it ought to be, thereby allowing the weights to be more concentrated, she would then with ease stow at least 180 tons of water.

"7. *Berthing.*—Her great beam makes her very superior to other ships; 400 troops hanging up in their hammocks with ease, besides the ship's company; and 300 of the troops messing with comfort on the main, and 130 on the lower, deck, with the ship's company. She conveyed from Cork, 323 troops, 50 women and children; from Halifax to St. John, N. B., the head-quarter division of the 65th regiment, amounting to 400 troops and 77 women and children, with a great quantity of artillery stores; and from Halifax to Quebec, the whole of the troops and baggage that went out in the Hercules, with the whole of the heavy baggage of the 34th regiment, besides a great quantity of the officers' baggage, who had left that place in the winter, with their regiments, for Quebec, with 500,000 dollars. At the same time the ship remaining, with all her equipments, in a perfect state as a man-of-war.

"And as their Lordships have been pleased to direct me to make any observations on her in comparison with other ships, I

* "Notwithstanding she had no ballast in her.—E. B."

am decidedly of opinion she is in every respect a perfect man-of-war, having great superiority over every ship of her class, in the stowage of water and provisions, and for carrying troops and stores. Their Lordships will be able to ascertain, by the returns of the ships conveying troops to Canada, the great superiority of the Pique for services of that kind: and I am also decidedly of opinion she has not more breadth of beam, or height on the main deck, than is necessary; believing, that if frigates are to be armed with line-of-battle ship's guns, they should have a line-of-battle ship's deck to fight them. Since I left England, the ship experienced extremely bad weather, and was exposed to the extremes of heat and cold, — the thermometer, while at Quebec, averaging between 80° and 90° for the last three weeks I was there; yet we have not, on my arrival here, a defect of the least importance; nor have we had any. Neither have we had the slightest occasion to caulk, there not being a leak in any part of her; nor does she show the least symptoms of being strained or worked in any way. She has not carried away a spar, or had occasion to set up the rigging since October last, in Plymouth Sound. I feel I am therefore justified in giving it as my opinion, that she is a very superior man-of-war, and a class of ship well adapted for all the services required in Her Majesty's Navy.

"I beg also to observe, that immediately on my joining the Pique, I, in a measure, made up for the great deficiency of weight amidships, caused by the magazine being placed there, by moving as much from both extremes as I could; and that she has been sailed a foot by the stern, and kept so with great ease; and her masts placed agreeably to the Surveyor's wishes.

"I also beg leave to call their Lordships' attention to her peace establishment; and, taking into consideration the sick list, and the liability of being at times short of complement, I can assure their Lordships her present complement is not sufficient for her.

"I have the honour to be, Sir, &c.,

"EDWARD BOXER, Captain."

"Admiral Sir P. Durham, Bt."

No. 89. *From the same.*

"H.M.S. Pique, Sacrificios *, 27th Feb. 1839.

"MY DEAR SYMONDS,

"I was in great hopes, when I wrote you by the last packet, that I should have been at Port Royal ere this, getting troops on board for Halifax; but there appears to have been great difficulties in settling the differences between the French and Mex-

* An island in the Gulf of Mexico.

icans. All is now, it seems, settled, and our minister will be on board Pique next Saturday or Sunday; after which the parties will meet on board Madagascar for the final arrangements. A Mexican minister comes down with ours for that purpose; and it is to be hoped no further obstacles will be thrown in the way, as it is quite time our squadron should be on the move for the summer stations. I assure you I am all anxiety to be at work, and the Admiralty may rest assured my movements shall be quick. I am afraid you will not get a letter from your son by this packet, as it is now blowing strong from the northward, and the packet will sail (I am afraid) before they can send up their letters.

"I have been quite a store and provision ship for the squadron, and Rover's stowage of provisions has also been of great service. I trust this will open the eyes of our opponents as to the great advantage we have over all other ships. Press the Admiralty, my dear Symonds, to bring forward one of your new 36's, and when Pique is paid off, recommission her with the magazine where it ought to be. Armed with 68-pounders on her main-deck, which she would carry with as much, or more ease than our present armament, she would then—from her stowage of provisions, water, and stores, her force, and great stability, and capacity for the conveyance of troops, and her superiority in sailing—be superior to any man-of-war that was ever built, or ever could be, except on your lines.

"Give you but fair play, and I am satisfied the opinions of your inveterate opponents would very soon sink into nothingness. It is quite time, my dear Symonds, to look about us, for the next war will be quite different to the last. In the last we went into the field with greater experience than our opponents; whereas, they now have as much or more than ourselves, and ships every way equal to us. If the Commission which is now sitting do not recommend a great alteration, to keep up our efficiency in officers and men, I feel satisfied the country will find out its mistake when too late to remedy it. There is a growing discontent among all classes of officers, which, if not attended to, will very soon deprive the service of many of its best men. Time is doing a great deal, and disgust will ruin it. We are not what we once were, or ever shall be, unless we get more work, quicker promotion, and better pay. Your son was quite well yesterday: his ship is in good order.

"We have no communication with the Admiral or Port Royal since I last wrote: five mails must be there for us.

"I remain, my dear Symonds,

"Yours very sincerely,

"Sir W. Symonds." "EDWARD BOXER."

No. 90. *From the same.*

"H.M.S. Pique, Port Royal, 8th April, 1839.

"My dear Symonds,

"I sail to-morrow with 250 of the 68th regiment for Montego Bay, where I take on board 450 of the 8th for Halifax. Wanderer* and Andromache† go with me; and from Halifax I am ordered to Bermuda, where I suppose I shall meet the new Admiral. If I had had the fair run of the service, I should have taken a freight from Vera Cruz home; but Madagascar‡ is taken off the station to perform that service, and Pique replaces her; although there were orders from the Admiralty here to send me home. Indeed, I had received my orders to that effect, when it was found, after I had received them, that a ship would be wanted for that purpose; and, in consequence, the two ships' stations were altered. This, I cannot but think, was very unfair, nor do I think the Commodore was justified in so doing. However, there is one consolation, I am now doing some public good, and Pique will shine again in the number of troops she will receive on board.

"I wrote you occasionally from Vera Cruz; the last accounts will, I am sure, be very satisfactory to the Ministry; indeed, our Minister managed it well. I left with Andromache, Pilot, and Snake; and I am sure you will be pleased to hear that we beat them all, although I had only 20 tons of provisions, wood, and coal, and 120 tons of water on board when I sailed. Having kept the squadron up while lying there, (which is another feather in Pique's cap,) and after three weeks' passage, you may suppose how light we must have been when I arrived. I had only six days of bread on board; but it appeared to make no difference in your fine ship. Her stability was the same, for I could have fired a broadside either to windward or to leeward with as much sail as our masts would bear. Indeed, I never carried more since I have commanded her. I kept her to the foot by the stern, which most certainly is her best trim.

"Pilot beat Snake; but one had clean copper, the other very foul. Andromache did not try with him; and she arrived here two days before Pique, in consequence of having taken the south side of Jamaica, and Pique the south side of Cuba, in bearing up. During the time we were in company we beat him con-

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* Wanderer, by Sir W. Symonds.

† Andromache, 26, built 1832, by Sir R. Seppings.

‡ Madagascar, 44, built 1822, after the French President.

siderably, and stood up like a church, in comparison to him, overpowering him with sail. I can account very easily for the advantage the sloops had over me on one occasion,—that is, Rover and Modeste; the day before our arrival here, having found Pique, on our arrival, 1 foot 10 inches by the stern. I am now quite clear as to her trim; she must not be more than 1 foot by the stern, or so much; but I have very great difficulty in keeping her so. When the magazine is placed where it ought to be, there will then be none. I am delighted to hear there are so many new *Vanguards* laid down; we are therefore, my dear Symonds, beating your opponent by wholesale. I should have liked much to have been in England, to have been in readiness in the event of any examination taking place in consequence of Lord Ingestre's motion; but my report of Pique, I hope, will be printed for them. Your son is here, and I assure you his ship is in good order.

"I remain, very sincerely and truly yours,

"EDWARD BOXER."

"Sir W. Symonds."

No. 91. *From the same.*

(Describing the gale in the Bay of Acre.)

"H.M.S. Pique, at anchor in the Bay of Acre, December 2, 1840.

"You will, I much fear, my dear Symonds, think me a very shabby fellow, not having written to you since I left England; but all my friends, even my wife, will have cause to complain on that head; for I have written to no one, except to her, and that not so often as I ought to have done. I have been so much employed (and you know I grapple with everything, heart and soul, that I have to do, and we have had our full share of the work on this coast), that I could think of nothing else. You will therefore, I am sure, excuse me for not having written to you before, especially as I know you have many friends in the squadron who will have informed you of all our proceedings. I wrote a short note at Malta, informing Sir C. Adam that the Pique had taken everything, both at Gibraltar and Malta, that was required for this expedition; which no line-of-battle ship, but your own, could have done.

"I fortunately arrived with my cargo at Beyrout before the Commander-in-Chief; which was of great importance, as it allowed the landing to take place immediately. These proceedings you know, and all our operations up to this date. Nothing, indeed, could have been more energetic or more successful; at our landing it looked very gloomy. But through the exertions of the fleet, we have brought it to this happy issue; and here I

am repairing damages done by our ships at Acre. The destruction caused by their fire was dreadful; and never, in my opinion, was there a more brilliant achievement, which I trust will end this war. Indeed, from Lord Palmerston's letter, there can, I think, be little doubt about it; for the whole of Syria is in our hands.

"6th Dec.—*Pique, at sea, under jury masts,* and steering by rudder chains, the head of our rudder being wrenched off by wreck of mizenmast, and only one anchor (even stream gone).—I little thought, my dear Symonds, when I sat down to write to you, that, the next day, poor Pique would have been in such sad distress. Indeed, my dear fellow, I never expected to have saved her; the gale was so violent and the sea awful. Even with all our masts gone, we drove with two anchors, and parted one, when she brought up, leaving us riding with 120 fathoms on the sheet, and unfortunately the wreck of our bowsprit lying across it. But the precautions we took in lashing our chain cable to it, and veering to take the chafe, saved us.

"I send you a copy of my hasty letter to the Admiral, with an extract of our log, which will make you quite master of our sad state; but, thank God, we are now all to rights, and, I assure you, looking quite smart. Our hull has not been in the least injured, but the wreck struck us hard, and has caused us to make a little water, 12 inches in 24 hours; our first 12, which is very little; but then we made none before, so that with our other defects it will cause us to be ordered home.

"Indeed, if this war is over, which I think it must be, it would not be fair to keep her longer in commission without being examined at home; although, I assure you, she does not show the least strain in any part of her. No ship could have rode easier or behaved better, not even wetting the forecastle, or shipping water through the hawse holes. Nothing, however, could have withstood the violence of the wind and the tremendous sea that came in; and, believe me, I never expected, even after we cut away our masts, to have rode it out; but here we are working and sailing beautifully; and if I was quite safe with our rudder, I should be quite satisfied to proceed home, without stopping at Malta. We are steering by rudder chains; having driven three eye-bolts in each side of the rudder, with chain pendants shackled to them, crossing them, and rove through three eye bolts in a line under each counter, with tackles hooked to them, and one of them brought to the wheel, which steers her with great ease, leaving the others as preventers; so that I have no fear but we shall manage to get to Malta in safety. Poor Zebra, I fear, will not be worth getting off, for she must have

struck hard when grounding. Indeed, when I saw her driving on shore, I did not expect many lives would have been saved; but I am in great hopes none were lost, as he hoisted his ensign union up, in answer to mine, union down, at daylight; and she appeared to lie quiet. Young Stopford did all that could have been done for her, and Henderson behaved nobly in endeavouring to assist her, when he made the signal of distress.

"His steamer showed great powers; and I am satisfied that class is the best that has been built for all services. Gorgon and Cyclops are too heavy and unwieldy, and certainly have not done more work than the others; but it is now likely I may see you soon, when I will give you more information about them. I write this, my dear Symonds, to be in readiness to send on board any steamer bound home, as no doubt reports will get home before us, which may make you all uneasy.

"God grant our Admiral, with Bellerophon and Rainbow, may be safe! If the gale blew home at Beyrout, with the sea we had, some serious accident has happened. But I have great hopes it did not; and that he sailed the day before, as he intended to do, immediately the weather changed. However, I ordered Vesuvius back, immediately he had towed me well clear of the land, feeling satisfied, with the resources of Pique, I could take care of her myself; and I trust, with that kind Providence which has hitherto watched over us, I shall get her to Malta in safety. We were not idle in getting under jury masts;—the third day from Acre had studding-sails set, and made a main-mast at the same time, not having been supplied with a second main-topmast, and having carried away one on my passage up.

"With my kind remembrances to Edye, I remain, &c.,

"EDWARD BOXER."

"Sir W. Symonds."

No. 92. *From the same.*

"H.M.S. Pique, lat. 33° 27′ N, long. 32° 27′ E.
"5th December, 1840 (off Alexandria).

"SIR,

"It is with feelings of the deepest regret that I have to inform you, that the crippled and distressed state of the Pique (received in a most violent gale of wind in Kaiffa Roads, in the Bay of Acre) has compelled me to quit a service I was so proud to be employed on, and so highly honoured in being appointed to. But the loss of my bowsprit and masts, with the head of the rudder wrenched off, as well as three bowers and one stream anchor parting, made it unsafe for me to remain on the coast; and even if I had been able to do so, I should have been a

burden instead of a service to you. I have therefore availed myself of the services of the Vesuvius to tow me 130 miles from the land.

"The jury, fore, and mizen-masts are now rigged, substituting topmasts; and to-morrow I hope to have my mainmast complete, when I feel under no apprehension of my being unable to get safe to Malta. Not wishing to keep the Vesuvius any longer, being fearful that the ships in Beyrout may have suffered in the same gale, I have directed her to repair there immediately, on her way to her station at Acre.

"It is also with deep regret that I have to inform you of the loss of H.M. Brig Zebra, which, after cutting away her masts, drove on shore. At the same time, I have much pleasure to inform you, that the conduct of Commander Stopford showed great skill as a sailor in the management of his brig during this trying occasion; and when I saw him driving on shore, I did not expect to have the satisfaction of seeing him at daylight, next morning, rigging derricks, to get her stores and provisions out of the ship, he having made the signal to me, 'All's well.' Most sincerely do I congratulate you, sir, on his safety, and that of his ship's company.

"To Commander Henderson the service is highly indebted for the assistance he has rendered me; and I shall feel ever obliged to him. His conduct, when I made the signal, 'Can't you assist Zebra?' (after she made signals of distress), was truly characteristic of a British sailor; he immediately got under weigh (at the greatest risk for his own safety), for the purpose of anchoring near her, to try and take her crew on board; but in the trial lost two of his anchors. He was then obliged to put to sea, which he had the greatest difficulty in doing, as it was at most imminent risk.

"The following is an extract from the log on this trying occasion. I trust that I shall not have forfeited your good opinion in having quitted my station, having left Lieutenant Fellowes (an officer of merit), the Carpenter, his crew, and about thirty men, to complete the repair of the works I had contemplated doing.

H.M.S. PIQUE.

Direction of Wind.	Remarks, &c.
	Dec. 2nd, 1840.
W. by N.	A.M. 7·30. Heavy gales. Struck topmasts; lowered them close down.
	8·30. Down lower yards on the gunwale, got

Direction of Wind.	Remarks, &c.
	the booms off all the yards, and made the ship as snug as possible.
W. by N.	A.M. 9·40. Gale increasing with heavy swell. Observed Zebra driving.
	„ 10·15. Zebra cut away her masts, and made signal of distress. Signaled to Vesuvius, 'Is steam up?' 'Can you assist?' Answered, 'We'll try.'
	„ 10·0. Found ship driving; let go the port spare anchor; veered to 60 fathoms, and brought her up.
	„ 10·20. Vesuvius got her steam up.
	„ 11·40. Vesuvius signaled to Pique, 'Have parted bower-anchor, must weigh the other.' Pique to Vesuvius, 'Do as you think best for him.'
	„ 12·0. Gale still increasing, with tremendous squalls and heavy sea. Parted the best bower-anchor; ship driving, let go the sheet anchor; veered near clinch on spare anchor, and forty fathoms on sheet.
W.N.W.	P.M. 12·40. Parted spare anchor from the bitts, and lost 85 fathoms of cable; ship driving again, veered to 160 fathoms on sheet, and brought her up.
	„ 1·0. Steamer weighed; Zebra brought up for some time.
	„ 1·40. Steamer anchored again, but parted soon after, and went to sea.
	„ 3·20. Tremendous squalls, with a very heavy sea; ship driving; cut away the mainmast, which fell by the board on the port quarter, and carried away with it the mizenmast, cutter, jolly-boat, and gig.
N.W. by W.	„ 3·40. Ship still driving; cut away the foremast, which in falling took the bowsprit, &c., with it close to the stem; ship brought up; wreck fell across the sheet-cable without a possibility of clearing it; lashed the best bower-chain to the sheet-cable at every foot, as a preventive, in case of wreck chafing the sheet through, and veered to 180 fathoms on sheet; let go the stream anchor and chain, the large kedge on stream hemp, and small kedge on 8-inch hawser.
	„ 5·0. The small bower parted five lengths from

Direction of Wind.	Remarks, &c.
	anchor; drove; veered to 85 fathoms on stream and kedges, and commenced throwing quarter-deck guns overboard.
N.W. by W.	P.M. 5·20. Brought up in 8 fathoms; threw overboard six quarter-deck guns, and prepared to throw over all, in case of driving again, to save her topsides. All hands clearing the wreck.
	„ 5·40. Gale moderated.
N.W.	„ 6·0. Found rudder-head wrung off by wreck of mizen-mast; secured to by the rudder pendants. Fired blue lights and rockets half-hourly, during the night, as signals to Vesuvius. Hands clearing the wreck.
	„ 10·30. Mr. Thomas Scott (boatswain) died from a blow received during the day, whilst employed in lashing the bower-chain to sheet cable.
	3rd Dec. 1840.
N.W. by W.	A.M. Daylight. Hoisted signal of distress; observed Zebra show her ensign, 'Union up,' lying upright, apparently not much damaged. Sea decreasing. All hands employed clearing wreck, and rigging temporary jury-masts.
W.N.W.	„ 10·30. Observed Vesuvius in the offing to the north-westward.
	P.M. 1·15. H.M.St.V. Vesuvius anchored; a considerable swell rolling in. Hands employed rigging temporary jury-masts, and endeavouring to clear the wreck from the sheet-cable and bows.
Westerly.	„ 2·30. Got three topgallant-masts on end as lower masts; and committed the body of the deceased Mr. Thos. Scott (boatswain) to the deep. Observed Zebra's people rigging tents on the beach, and getting things on shore from the vessel.
	4th Dec. 1840.
S.E.	A.M. Carpenters and armourers about the rudder.
	P.M. 3·10. Rudder ready, with three chain pendants each side.
N.W. by W.	„ 3·15. Weighed. Vesuvius took us in tow. Made sail. Carpenters fitting jury-masts. All hands rigging jury-masts.

Direction of Wind.	Remarks, &c.
	5th Dec. 1840.
N.E.	A.M. 4·20. Stepped fore-topmast as a jury-foremast. „ 6·30. Stepped mizen-topmast as a jury-mizen-mast. „ 11·30. Steamer cast off tow in lat. 33° 27′ N., long. 32° 27′ E.

"I have the honour to be, Sir, &c.,

"EDWARD BOXER, Captain."

"Admiral the Hon. Sir R. Stopford, G.C.B."

[Enclosure.] *A List of the Defects of H.M.S. Pique, Edward Boxer, Esq., Captain.*

"At Sea, 20th December, 1840.

"Lower masts and bowsprit gone close to deck, with everything belonging, excepting topgallant-masts, topgallant and royal yards, and studding-sail booms. Rudder head wrung off by wreck.

"Starboard head-rails, beams, timbers, framing, and bumpkin all carried away.

"Hammock netting and stanchions gone nearly all round; taffrail rail sprung.

"Cutter, gig, jolly-boat, lost, with gear complete.

"Makes half an inch of water an hour; supposed some wood ends, either in stern-post, or stem, started, from the wreck striking.

"Larboard boats' davits, and larboard stern davit gone, and starboard oars damaged.

"Fore riding bitts much cut in by cable.

"Fore and main courses, fore, main, and mizen-topsails, jib and fore-top staysail, lost.

"Three bower anchors, 1 stream ditto, 85 fathoms hempen bower cables, 65 fathoms bower chain, 24 fathoms stream chain, six 40 cwt.-32-pounder guns, lost.

"Wales, topsides, and oak planking on main deck, in want of caulking.

"Sheet cable much cut and chafed.

"Bumpkin made good, as well as hammock stanchions and boarding, on the passage down.

"EDWARD BOXER, Captain.
"J. C. BARLOW, Master.
"JOHN GRIFFITHS, Carpenter.
"H.M.St.V. Vesuvius."

No. 93. *Extract of a Letter from an Officer of H. M. S. Bellerophon.*

"Marmorice, December 19th, 1840.

"We were obliged to slip both cables, and make sail under close-reefed topsails and reefed courses. We cut away the boom boats that were towing away. At this time we could only lay along the land, and not crawling off it much. At 9, it came on worse, with tremendous squalls. The mainsail, fore and mizen-topsails, split to ribbons. With only the remaining sail set, we were heeling 40°, and the quarter boat completely in the water. I don't think it was ever the case in a liner for her to be carrying on and heeling steadily so long a time. The mainmast complained a good deal; we were expecting every minute to see it go, but luckily it held on. We hove upper deck guns and shot overboard, which eased her. At about 2 P. M., the foresail and main-topsail blew out of the bolt rope.

"We were only 8 miles off shore, blowing a perfect hurricane, with only fore-staysails and main-trysail. At about 4, in a lull, we managed to get the foresail bent, and set it reefed with the storm-staysail, but still nearing the shore. She went on this way till 10 o'clock, trying to bend the topsails. We were then in 40 fathoms water, about 3 miles off shore.

"The Captain had a consultation with the officers, and decided if we shoaled the water to 20 fathoms, to cut away the masts, let go sheet anchors, as our only chance of holding on; but only having hemp cables, I am afraid our chance would have been small. Luckily for us, the wind headed, and broke us off about 3 points. We immediately wore, and succeeded in bending the fore and main topsails; and by carrying a heavy press of sail, the wind favouring us a little, succeeded in getting an offing. Towards daylight, the gale abated; however, at daylight, we found ourselves about 6 miles off the Point of Tripoli. In the forenoon the wind moderated to a nice breeze, and we stood out. The general opinion is, had we gone on shore there, hardly one in a hundred would have reached the shore. It is an excessively rocky coast, and we must have grounded some way out. We have sustained a good deal of damage, besides the loss of anchors, cables, boats, guns, &c.

"The ship is terribly strained and very leaky. We fell in with the Admiral the next day, who had laid it out, in a more sheltered place. He mentions that all the merchantmen were wrecked, and a sea broke on board an Austrian corvette, carrying away her foremast. The same gale which so nearly proved fatal to us, drove the Zebra, and completely wrecked her. She was

sent there by the Admiral to pick up shot, and was at anchor when the gale came on. She let go all the anchors, which would not hold her; they were obliged to slip and run her right up. She is now high and dry on the beach."

No. 94. *From Capt. E. Boxer, R. N.*

"H.M.S. Pique, Malta, December, 27th, 1840.

"My dear Symonds,

"Here I am, all safe, which I am sure you will be glad to hear, as the Commander-in-Chief's letter will have informed the Admiralty of our distresses, and our being at sea with jury masts and no rudder head. You will, therefore, I am sure, be a little uneasy until you hear of our arrival here. I wrote you the day before we got in, to be in readiness should I meet any vessel bound home, and as I believe those letters, &c., will give you some information, I shall let them go on; also those to their Lordships. I have received a very kind public letter from the Admiral, approving of everything I had done, and highly complimenting me on our exertions in fitting Pique so soon with jury masts, and on my services on that coast. You will, I hope, see the copy of his letter to me after Acre was taken. Sir Charles, I am sure, will show it you; it is very flattering.

"But, my dear fellow, I worked hard, and had everything ready for an attack immediately he arrived, which at that time of the year, and on so dangerous a coast, was of the greatest importance; and you will see by his letter he thought so. I was very happy to find the ships at Beyrout were safe; but if the wind had been right in, as it was with me, nothing, I am satisfied, could have saved them. We had it at N.N.W. and N.W. by W.; they, W.S.W., which had hold of Cape Beyrout. I assure you I never expected to have saved poor Pique; the sea and wind were truly awful. Yet, my dear fellow, nothing could have rode easier than your fine ship; rolling very little, and hardly throwing the spray over the forecastle; or, as I said before, scarcely more water in at the hawse holes, than what the scuppers in the manger carried off. They speak, too, of Vanguard in the gale that the squadron experienced, as behaving beautifully; not straining a rope-yarn, when all the other ships did more or less.—I am rather sorry, now this war is over, that our defects are to be made good here; for I am quite sure I could get home and out again, before they will finish me here. At the same time, with the exception of the Admiral, all are against us at this yard; and I understand I am to have Seppings's lower masts, which I don't much like; however, we

must make the best of it, and get ready as fast as possible. — I find we still make about a half inch an hour, which must be from some wooden end that has started, either forward or aft, from the wreck striking her; but she shows no appearance of strain in any part of her.

"I wrote all particulars in my last latter, but I forgot to tell you, that while in company with Castor, I beat her on all points of sailing very much; and everything we sailed with. But our copper gives me much trouble, as I have great difficulty in keeping it clean; which is another reason why I should like to have gone home. If there was any likelihood of a French war, I might have got her coppered afresh; or if peace, take my chance of paying off, which I should not much care about, the expenses of this station being too much for me.

"Will you have the kindness, my dear Symonds, to forward the accompanying letter to Mrs. Boxer; she will no doubt be uneasy about us. With my respectful compliments to Lady Symonds,

"I remain, &c.,

"EDWARD BOXER."

"Sir W. Symonds."

No. 95. *From the same.*

"Quebec, March 23rd, 1845.

"MY DEAR SYMONDS,

"I was delighted to see, by the last mail, Lockyer's report of Albion, and my report of Pique, published. If you have any other document of mine that would strengthen that report, I hope they will be published, for it is really shameful the scurrilous attacks that are made on your fine ships. The builder's report at Chatham, after all the work Pique had done while under my command, would be a strong document. But you have many others as to her qualifications, which, if they had daylight, would be of great service; I therefore hope they may not be kept back, for the time is now come to make a stand against a party who have been for years publishing nothing but falsehoods. —— is a bitter enemy; but he is a dirty fellow, both inside and out, and can do you no harm in the end. Indeed, I wonder he has gone off so easily, without being exposed for his want of knowledge in the management of his division at the attack at Acre; for nothing could have been more lubberly or shown greater ignorance of his profession. Be assured, my dear Symonds, the time will come when he will be found wanting.

"I do not despair of having in hand one of your fine 90-gun

ships, for nothing should keep me in this 'long-shore appointment, if war was declared with any other power. I quite agree with you about Dover harbour, and should have made the same protest as you have done, had I been one of the Committee; from a knowledge of the movement of the shingle, which must not be stopped. If it is, it will fill up the new harbour, independent of the sediment of mud from the old: you are also quite right about the anchorage, for nothing can be worse.

"I remain, my dear Symonds, &c.,

"EDWARD BOXER."

"Sir William Symonds."

No. 96. *From the same.*

"Quebec, November 23rd, 1846.

"MY DEAR SYMONDS,

"I was much gratified to hear again from you; indeed, I should have written to you some time since had you not promised me, in your last letter, to send me a publication, which was about coming out, in answer to those villanous attacks which, for so long a time, had been made against your system of building. I find it is now published, but there is no getting it here. Will you, therefore, send me one by the first opportunity.

"I am only anxious to see how they have defended you. I hope all my reports have been taken notice of in it; for no one could have had a better opportunity of judging, by comparison, of the merits of the new and old system, than I had from experience; having commanded one of the last improved old frigates, and the first of yours, Pique; being, during the command of both, in all climates, and in the worst of weather. My reports were, therefore, in a measure, the result of that comparison, and given most conscientiously. But the time, I must fear, is not far off when their merits will be more fully tested in hard blows; though I do not fear the result, and that the service and the country will do you justice. Indeed, they are now with you; notwithstanding all that has been said and done against you, particularly by some who ought, from their high station, to have acted differently. But, my dear fellow, you have nobly stood your ground, and will now be supported by kind and generous friends, who will duly appreciate the services you have rendered your country. God grant they may long rule its destinies.

"Believe me, yours, &c.,

"E. BOXER."

"Sir W. Symonds."

H.M.S. CLEOPATRA, 28 *guns*.

Built 1835, at Pembroke. Tonnage 918.

No. 97. *From Lieutenant F. Liardet, R.N.*

"H.M.S. Cleopatra.
"Little Nore, Oct. 29, 1835.

"Dear Sir,

"It is with sincere and heartfelt pleasure that I inform you how much I am delighted with the Cleopatra. She sails very fast, works well, and is in every respect an easy, comfortable, good ship. Her going on shore has given great pain; however, it is a consolation to think it will prove to the world how well your ships take the ground. To the best of my judgment, the Cleopatra never struck on any part but her keel, at the time heeling about three streaks, and striking very heavy for about twelve hours out of the six-and-twenty which she was on shore; still, she appears to have received little or no damage.

"It is my opinion, that had she been a vessel of the old construction, she must have struck on her bilge, which part being considerably weaker than her keel, would have made her getting off a doubtful case. Allowing that she was not bilged, it would still require a greater power to heave a vessel off, grounding on her bilge and keel at the same time.

"On the 25th of October, under double-reefed topsails, courses, jib, and first-reefed driver, close-hauled, she astonished us all, by going 11 knots clean off the reel—a thing I had often heard talked of, but always doubted, until I saw the Cleopatra do it the other day. Since then we have had a very heavy gale of wind— in fact, the heaviest I have ever seen on the coast of England; during the whole of which time she called forth the admiration of all hands; she was so easy, dry, and well behaved: even those who were not inclined to give her all the credit she really deserved, were obliged to express their approbation of her splendid behaviour during the whole gale; in confirmation of which, she has not strained a single rope, nor chafed a bit of her rigging. The harder it blows, the easier she appears to be, compared with other ships I have been in.

"I remain, dear Sir,

"Yours, ever faithfully,

"F. Liardet."

[Now Captain F. Liardet, of 1848.]

"Captain Symonds."

No. 98. *Extract of a Note from Admiral Sir Robert Stopford to Admiral Sir William Parker.* 1836.

"A French brig of war, lying at Rio Janeiro, boldly challenged the Cleopatra to a trial of sailing; and they both worked out of that harbour against a sea breeze. In a beat of three miles, the Frenchman was outdone by 1½ mile, to the disappointment of the French Admiral, who was confident of success, and had furnished his countryman with everything he could require."

No. 99. *From Captain Hon. G. Grey, R.N.*

"Cleopatra, Rio Janeiro, March 3, 1836.

"Dear Captain Symonds,

"As I have now had more opportunities of judging of the ship's sailing, I will not allow this packet to go to England without sending you some account of her.

"On our passage out, the only trial we had was, in leaving Plymouth, with the Pearl*; the wind light, about a point free, and a head swell. She was about 2 miles ahead of us. In a few hours we passed to windward of her, in a manner to show that she was no match for us. We had also a chase after a beautiful Spanish slave schooner, near the Cape de Verd Islands, in which we all thought she did wonders; but still, as I maintain that every ship sails *wonderfully* when she is alone, and that one cannot judge from the log, I was very glad when the Admiral told me that he would take me out with him off Cape Frio, to give us a trial. Every person on board the Dublin† making quite sure of beating us, as they say they had had the advantage of the Rover.

"It is now five weeks since we sailed, and during most of that time we have been in company with her, and have had opportunities of judging on every point; but on a wind, in a moderate breeze, we always lie at least a point nearer the wind, and then forereach, sparing our courses. He frequently made my signal to overhaul vessels, and in rejoining him from dead to leeward, I always found that we came up with him in an extraordinary way; and the stronger the breeze, the better it is for us.

"Going free, our superiority is still greater. The other day, in running out of St. Catherine's, he was under a great press of

* Pearl, 18, sloop, built 1828 by Mr. Sainty.
† Dublin, 50, built 1812.

sail, that is to say, royals, topmast, topgallant studding-sails, and staysails, in a fresh breeze. We were under topsails and foresail, obliged every now and then to haul the latter up, to keep our station. Again, three nights ago, in a heavy squall, going 10 knots, under treble-reefed topsails lowered on the cap, we ran by him and out of sight in a very short time.

"I am convinced that the ship sails very well, and is in good trim—the same as with which we first sailed. I don't go so much from the way in which we have beaten the Dublin, as from the manner in which we have come up with the numerous vessels we have chased. One, an American brig, has given us a great name, as she had the reputation of sailing very well; but we overhauled her, from being nearly hull down, in two hours.

"We have, to-day, been six months and twenty days in commission, out of which we have four months and seven days' sea-log; and in all that time she has strained nothing, and has had no defects. The Sulphur has come in, wanting general caulking; we have not so much as a leak in one of our decks. In short, I am delighted to be able to give you so good an account of her.

"Believe me, yours, &c.,

"GEORGE GREY."

[Now Rear-Admiral Hon. G. Grey.]

"Captain Symonds, R.N."

No. 100. *From the same.*

"Cleopatra, Lat. 11° 30′ S., Long. 37° 12′ W.

"May 2, 1836.

"DEAR CAPTAIN SYMONDS,

"The Ranger* is now in company with me. We sailed together from Bahia, the day before yesterday, for Pernambuco. I have been long wishing for this opportunity, especially as Turner speaks so highly of her qualities, and in order to prove whether the manner in which we have beaten everything we have seen, was from our superior sailing, or from their being dull vessels.

"All yesterday, with a steady breeze, on a wind, we beat him very decidedly. I chased and boarded two vessels, and at 2 P.M., she was rather more than 2½ miles right ahead of us, or, if anything, on the weather-bow. At 5·40 P.M., I spoke him, passing on his weather-beam and after-quarters; the wind light; took in the first reefs. In about half an hour, when we were close to her, the wind freshened in a squall (which he had been wishing for), until we were going 8 knots, about a point free,

* Ranger, commanded by Lieut. J. W. Turner.

sparing him a reef, and, in a short time after, the mainsail. This morning he is in sight, astern, only from the maintop. I shall wait his coming up, so as to have another trial.

"As far as we can judge, she appears to go very fast through the water, and to stand up well under her canvas; and certainly we have seen nothing that has at all equalled her in sailing. Her sails appear to stand very well, and she does not look to be a bit overmasted. I think raking her masts would improve her, or else moving the foremast a little further aft.

"Turner tells me that she carries a slack helm, except in a strong breeze; and his opinion is, that she is not deep enough in the water. She certainly does not give me the idea of being so easy a ship as *this* is, of which my opinion is, more than ever, that she is a perfect man-of-war. I no longer find any difficulty in stowing even four months' bread and provisions under hatches.

"I was also in company, for two days, with the French ship Ariane. She is a sort of eight-and-twenty, carrying medium guns a good deal longer than this ship, but with only 35 feet beam. We found that we could spare him courses, and then lie a point nearer the wind.

"Pernambuco, 5th May.

"We both arrived here this morning, and I think Turner is perfectly satisfied that he can do nothing with us on any point of sailing. In a breeze, our advantage is still greater than in a light wind.

"Believe me, yours very truly,

"GEO. GREY."

"Captain Symonds."

No. 101. *From the same, to C. Wood, Esq., M.P., Secretary of the Admiralty.*

[Extract.]

"Cleopatra, Buenos Ayres, Aug. 23, 1836.

"I sailed from Rio on the forenoon of the 6th. The wind was very light, and a few merchant vessels were trying to get out of the harbour, with boats towing. After breakfast, the Admiral sent me his boats, and told me to use my own, to tow me into the fairway, thinking that the ship would not be able to get out.

"There was a very light breeze, and, on the strength of it, I sent the boats back, to say that I did not want them. Weighed, and passed close under the Dublin's stern, going nearly 3 knots, and fetched out of the harbour, passing *merchant vessels as if they had been at anchor, in a way that astonished even all on*

board (*and we have a pretty good opinion of her*). When near the mouth of the harbour, I observed the barometer fall very much, and had just time to make all snug, when a *pampero*, from S. W., came right in our teeth, and most beautifully the ship worked to windward, under close-reefed topsails and reefed courses. On the 13th, we anchored at Monte Video.

"The Hornet schooner, which left this five days before us, did not arrive till the 16th. She sailed again from Monte Video four hours before us, and next morning, from being able, owing to her draught of water, to make a short cut, she was about 4 miles dead to windward of us, and making short tacks all day; the wind dead in our teeth, a fresh breeze. At sunset, we could just distinguish her to leeward, and we anchored at this place ten hours before her. In short, Cleopatra is a regular clipper."

H.M.B. ALERT, 8 *guns.*

Built 1835, at Rotherhithe. Tonnage 358. A packet brig.

No. 102. *From Lieut.-Commander W. P. Croke, R.N.*

"Express, Falmouth, Sunday, April, 1837.

"My dear Mr. Edye,

"Although I dropped you a line the other day, I cannot resist the pleasure at this moment of telling you and Sir W. Symonds, of the arrival of the Alert, after a voyage to Halifax, thus made,—18 days out, 11 days there, and 16 days home,—being of course 45 days in the whole voyage. I am sure that there is no voyage of so short a period on record, nor do I believe that 18 days out can be found. We came home in Express, in 16 days, with our royals set; but this is nothing to the Alert. Surely there must be something in the thing; and I feel satisfied, that whenever these vessels get the chances of wind that happen sometimes, they will 'astonish the natives.' Pray tell Captain Symonds about it. I have not a minute to lose to save this post. I lost it yesterday, to tell you of the Alert, as I know Harrington does not write to you.

"I hope you have given the two new brigs at Milford a regular set of ports and larger stanchions; but of this in a day or two.

"Kind compliments to Sir William.

"Yours very truly,

"W. Croke."

"John Edye, Esq." [Now Commander W. P. Croke.]

H.M.St. HERMES, 220 *h.p.*

Built 1835, at Portsmouth. Tonnage 830.

No. 103. *From Lieut.-Commander W. Blount, R.N.*

"H.M.S. Hermes, Falmouth, 20th April, 1837.

"My dear Sir William,

"You will be surprised to see our arrival so much before our time, but we are in a great measure indebted to the increased speed of the Blazer*, who has performed her last three voyages to Beyrout and Alexandria in less than 15 days; whereas the Tartarus* did not always accomplish it in 21.

"We reached Cadiz, on our outward voyage, in 4 days 15 hours; they say there, the shortest passage made. I was not quite so fortunate getting to the Rock, being obliged to bear up and take shelter under Cape Spartel, for 20 hours, the night the Pembroke drifted on shore. For a time, it blew as hard as I have seen it do in the West Indies. Hermes behaved nobly, and on the wind getting some southing in it, we made sail with the bonnets off the trysails, and turned her up to Europa Point, with the assistance of our steam.

"On passing the Rock of Lisbon lighthouse, at 4 on Sunday evening last, a steamer came out of the Tagus, supposed to be the Transit, with the Duchess of Palmella on board, bound to Havre. Our course was therefore the same, the wind northerly, fresh and nearly dead on end, going 6 knots. We shaped our course inside the Burlings, she went out; we kept nearly the same distance from each other. At daylight she bore west, and during the day of Monday, we gained but little on her, our speed increasing to 7 knots, owing to trimming the coals aft, and her lightening forward. Midnight our rate increased to nearly 8 knots, and at daylight on Tuesday morning she was visible, hull down, on our larboard quarter. At 9 A.M. we rounded Cape Finisterre, set our staysail and foresail, fidded topmast, and crossed the yard. At 3 P.M. she was out of sight, when our mainsail and topsail were set for the first time, wind N.N.W. A better trial of steaming could not take place; and if it was the Transit, she stands high, her yards were *white*, and paddle-box *blue*.

"16th March. — We experienced a heavy gale from the eastward, by which we were a little retarded, but, on the whole, have had fine weather for the season of the year.

"Believe me, yours very truly,

"W. V. Blount."

[The late Commander W. V. Blount.]

"Sir William Symonds."

* Both by Sir W. Symonds.

H.M.B. STAR, 6 *guns.*

Built 1835, at Woolwich. Tonnage 358. A packet brig.

No. 104. *From Lieut.-Commander Christopher Smith, R.N.*

"H.M.B. Star, Falmouth, January, 1837.

"SIR,

"I feel it my duty (now that I have had ample opportunities of estimating them) to write to you on the merits of H.M. Brig under my command. As I am a perfect stranger to you, the only method I have of attaching weight to my opinion, is to state that nine of my first years of service were passed under the command of Captain Clavell, in the Orlando, 42, a very favourite and fast-sailing frigate, during the war, in active service and on foreign stations.

"I joined in command of the brig in May last. She was then in dock at Plymouth, and I confess the novelty of her lines (being a stranger to your models) struck me as less safe than beautiful. I also thought her overmasted. It must be my business, now, to show the fallacy of my conclusions, and very gladly do I congratulate myself on the occasion.

"My first cruise in the Channel, and subsequent voyage to Rio (the shortest I hear on record), tended to give me great confidence; but I did not consider myself justified in troubling you with a report, until she had a more severe trial. I beg to say now, Sir William, that the Star has had that trial, and the following facts, gleaned from the log-book, will bear out her high character for safety, power, and fast sailing.

"We sailed (by a curious coincidence, nearly about the time of her late calamitous voyage) for Halifax. A S.W. gale caught us off Scilly, and from that time to our arrival at Halifax, 36 days, there were only 4 at all moderate. Gales of wind succeeded each other, during which time every kind of sea, long, short, broken, and confused, had its run. In all this bad weather, we have not carried away a splinter of our light hammock boarding, to say nothing of more serious injuries. On reference to the log-book, I find her running in the trough of a sea without shipping a spray, when a large American brig (with quarter boats) was lying-to under her trysails.

"But the facts of the homeward-bound voyage speak still more to the purpose. We sailed on the 22nd December, from Halifax, in a N.W. gale, which chopped round to the eastward shortly afterwards; on the ——, we fell in with the total wreck

of a brig or schooner, water-logged, with not a soul on board. On the ——, fell in with the barque Laing, from New Brunswick. She had encountered, what her master termed, dreadful weather; had lost bulwarks, &c., fore and aft. On the ——, came across more wreck, floating; and, by way of a climax, on the 10th of January, in Long. —— W., Lat. —— N., on the fog clearing away, observed the wreck of a large barque ahead. On closing, saw a dead body, hanging by the bent knees, in the main rigging. With the hope of saving the lives of any of the crew who might from exhaustion be unable to hail, I rounded to, and with difficulty sent a boat on board. This unfortunate vessel is the Albion, of London, timber-laden, water-logged, and decks partially blown up. From her broken tiller, and the remains of her jib, I presume, she must have broached to in the late gale, from perhaps too heavy press of sail.

"At any rate, she is a total and most dangerous wreck, being directly in the Channel track. I would have set fire to her, but found it impossible from the sea making a clear breach over her, I then considered the propriety of sinking her with my 9-pounders, but feared the responsibility of detaining the Mail. I trust I have now shown to your satisfaction, that having encountered the weather, which has destroyed so much life and property, and arrived in port without sustaining the slightest injury, the high character of H.M. Brig can never be again called in question.

"I have omitted to speak of her fast sailing, and wonderful power of carrying sail, because unnecessary; but it will be a great cause of pleasure to answer any questions you may be pleased to ask of

"Your most obedient servant,
"CHRISTOPHER SMITH."

[The late Lieutenant C. Smith died 1845.]

"Sir W. Symonds, &c. &c. &c."

No. 105. *From the same.*

"H.M.B. Star, Falmouth, 20th January, 1837.

"SIR,

"In obedience to your order of this day, requiring a report to be sent upon the sailing and seaworthy qualities of H.M. Brig under my command, I beg to say, I know nothing of her merits as a barque, as she was altered to a brig before I joined; but I am enabled to speak of her positive merits, as she is at present; and I can do so with great confidence, having but just returned from a severe winter voyage.

"I find that the lightest air possible affects her; so much so, that in a calm, great pains are taken to keep her head the right way; and I am persuaded she will forge ahead when vessels of any other construction would be stationary.

"The best point of sailing (and they are all good) appears to me to be close hauled, *under every circumstance.* She is very 'weatherly,' 'lively,' and stands well up under the heaviest press of canvas.

"Respecting her character as a sea boat, I have merely to state that in our late voyages across the Atlantic, we experienced a succession of S.W. and N.W. gales (going out), and had to contend with the heavy, confused sea, consequent on their sudden changes. During the whole of them, and in their heaviest squalls, her power enabled me to keep the main-topsail set, and under that sail, fore-staysail, and reefed main-trysail, she never shipped a sea, or carried away the least portion of her light ornamental hammock boarding, to say nothing of more serious injuries.

"I find her motion to be unlike any of H.M. Ships I have belonged to. She rolls quick, but not deep; pitches deep, but remarkably easy; in lying-to, although she occasionally gives an unexpected weather roll, yet she recovers herself and rises to the breaking sea, as readily as if pressed with canvas.

"Under the above sail and fore-trysail, she draws through the water 2½ to 3 knots; and, in spite of leeway, heaves of the sea, &c., I cannot bring to mind a day that we lost ground.

"I am not the least apprehensive of her being taken aback in any weather. The strength of her stern, its peculiar formation, and the security of the rudder (from its very raking position) renders her perfectly safe in this respect. I have seen her rise to a sea with stern-way as cleverly as she does with headway. I have never scudded her before a very heavy sea, but I shall not have the least hesitation to do so when requisite.

"To speak more of her strength; when I joined, the height of her between decks was pointed out to me as an objection, accompanied with this observation: 'that in heavy weather she would work.' This, however, has not been the case; on the contrary, she continues as solid as a block of wood. In the late gales, having my spare and stream anchors stowed amidships, I thought to strengthen her two midship beams, by shoring them up; for which purpose, I converted a sprung topmast-studdingsail boom, and then drove a stanchion under each. There they remained, *uncleated* during the whole of the bad weather, without moving a hair's-breadth, which must have shown, had it been otherwise, by the fresh paint-work. My

attention was called to this fact by one of the passengers, a considerable shipowner, Mr. Tobin, of Halifax.

"To sum up, the Star *sails well, steers easily, answers her helm quickly, stands well up under canvas, is weatherly to an uncommon degree, and the most buoyant sea boat I was ever in.*

"I have the honour to be, Sir, &c.,

"CHRISTOPHER SMITH."

"Capt Clavell, R.N.,

"Superintending Packet Service."

No. 106. *From the same.*

"H.M.B. Star, Falmouth, 2nd Jan., 1838.

"SIR,

"I have dated my letter from Falmouth, hoping to be there early to-morrow morning. If so, your brig will not only get the credit for scudding across the Atlantic in 13½ days, but of having done so under circumstances of the greatest trial.

"We left Halifax late on 19th Dec., and had but indifferent weather, until the 25th; it then assumed the character of a winter Atlantic gale. On the morning of the 26th, it blew a perfect hurricane, and before dark I never witnessed (to use the Master's expression) 'so mad a sea.' In any other ship I have sailed in, my opinion would have been for rounding-to, but *seeing her so lively on the water, more like a bird than anything else,* I had a doubt of doing better. 'Tis true we lost one quarter and stern boat. We also sprung the main-yard, not by labouring, but by sheer wind; for when I made up my mind to scud, I felt the necessity of keeping my brig ahead of her *following enemies.* Our sail—close-reefed main-topsail and foresail. I had Lieutenant Welch's * (of the Swift) *three-corner topsail* ready in the main-top, and my double-reefed trysail, with my main gaff for a boom (a storm boom-mainsail) all ready; but, thank God, we carried safely on. The 29th brought us up with a fine 450-ton American ship, her colours hoisted in distress. I closed and tryed to hail her, but the wind and heavy sea prevented my rendering any further assistance than the longitude.

"We bring important news from the rebel province. Our troops, who were in the first affair repulsed, have now triumphed; and it is possible that the force in Canada may keep them down until the spring, when the St. Lawrence will be open for rein-

* The late Commander D. Welch, of 1846.

forcement from home. I hope to get up to town, when I will call and pay my respects to Lady Symonds and yourself. Though I did not trouble you with a letter, I was deeply grieved at your recent accident.*

"I am, &c.,
"CHRIS. SMITH."

"To Sir Wm. Symonds, Surveyor of H.M. Navy."

H.M.B. RANGER, 8 *guns*.

Built, 1835, at Rotherhithe. Tonnage 362. A Packet Brig.

No 107. *From Lieutenant-Commander J. W. Turner, R.N.*

"H.M.B. Ranger, Falmouth, 22nd Feb. 1837.

"SIR,

"In compliance with your directions, I beg to enclose a report of the Ranger's sailing and other qualities, and have further to add, for the information of my Lords Commissioners of the Admiralty, that under all circumstances of wind and weather, the Ranger has proved herself to be a *fast sailer* and *good sea boat.*

"I beg to report, that on the 22nd of December last, we had an opportunity of trying the comparative rate of sailing with a French brig of war, L'Alcyone, of 10 guns. When beating into the Tagus, the Ranger both weathered and forereached on her, and she is reported to be one of their fastest vessels; and further, on leaving the Tagus, on the 13th of February, we beat out against a young flood-tide and a heavy sea on the bar, when the French frigate L'Harmonie put back.

"I have the honour to be, Sir,
"Your most obedient servant,
"J. W. TURNER, Lieutenant and Commander."
[The late Lieut. J. W. Turner.]

"To John Clavell, Esq., Captain of H.M.S. Astræa,
"Superintending Packet Service."

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* See p. 198.

H.M.B. EXPRESS, 6 *guns.*

Built, 1835, in the Thames. Tonnage 362. A Packet Brig.

No. 108. *From Lieutenant-Commander W. P. Croke, R.N.*

"H.M. Packet Express, Falmouth, 20th April, 1837.

"MY DEAR SIR,

"We arrived yesterday, in 25 days, from St. Thomas, and if we had had common luck, we should have been at Falmouth in 19 days. As it is, I verily believe that few, if any, vessels would have arrived against the strong and seemingly eternal easterly winds. We had made, for 12 days together, 230 and 240 miles a day; but, as the Spanish proverb says, by the mouth of Sancho Panza, 'A la boca del horno de querria el pan.' We have made a very good voyage; 12 passengers out, and 10 home, who were all delighted with the Express, in foul and fair weather; the first of which was much more than our fair share.

"WENTWORTH P. CROKE."

"Sir W. Symonds." [Now Commander W. P. Croke.]

H.M.B. WANDERER, 12 *guns.*

Built, 1835, at Chatham. Tonnage 428.

No. 109. *From Commander T. Bushby, R.N.*

"Wanderer, Port Royal, 22nd December, 1837.

"MY DEAR SIR,

"I can now give you a pretty fair account of the qualities of this sloop, as I have, since August, experienced all kinds of weather. On joining Wanderer, I found the foremast raking much more than was, I believe, intended by Sir William Symonds; and her draught of water, found on trial to be her best sailing trim, 19 inches by stern. She worked very well in this way, but I fancied she might work better if her foremast was more upright, and less difference in her draught; for although 19 inches might answer very well for most brigs of this class, the superiority of the Wanderer over any other I have seen induced me to try her drawing about 9 inches; as her quarters being broad and rather heavy, caused her, when going at all fast, to make a wake like a steamer. She answered so very well in that trim, either on a wind, free, before the wind,

or in lying-to, that I might venture to say she is much improved. She pitched rather heavy, and her bowsprit worked rather deep, but since I took the bulkheads out of the eyes, she pitches easier than any vessel I ever saw. I am convinced that all the weight that can be removed from the extremes of these vessels must be advantageous in a greater degree than to vessels of the old construction. I would, if it were possible, obtain permission to move the sail-bins from the sides, and make a sail-room under the standing deck, amidships, between the fore and main hatchways; thus taking about 1½ ton from her sides, at present above her line of floatation, leaving room to stow 45 imperial tons of water, and 4 months' provisions under hatches.

"I mention this as you were kind enough to desire me to give my opinion freely. I find her, in all weathers, steer remarkably easy; on a wind, in fine weather, carrying her helm about half a turn a-weather; in light winds with a head swell, falling off, much as other vessels; but when blowing fresh, say, double or treble-reefed topsail breeze, with a head sea, and carrying sail, I find her steer better and altogether easier. She certainly has not the fault of carrying a slack helm under any circumstances. In going before the wind, in moderate weather, the wheel is frequently not moved in an hour; blowing hard and scudding in a heavy sea, she steers very easy; in fact, she is altogether a remarkably fine vessel.

"I am just returned from the northward. When off Sancho Bank, 31st October, 1st and 2nd November, I experienced very severe weather; the wind shifting from E.N.E. to S.W. and W., blowing at times a perfect hurricane; and from the frequent changes of the wind, there was a broken and heavy sea. I found she preferred low sail, and when I got her under reefed main-staysail, reefed main-topsail, and occasionally, as it moderated, the fore-staysail, she was very easy; and although, from the constant breaking of the sea, she shipped a good deal of water, she never strained a ropeyarn. I found the Spey (packet) at Halifax, she having anchored an hour before me, and had been in the same gale. She suffered a good deal, having her bulwarks injured in a good many places. Rainbow and Comus came in a few days afterwards; they had also suffered considerably. I have mentioned all that at present occurs to me about the Wanderer. Should there be anything you wish to know further about her, may I beg you will permit one of your clerks to put it in writing?

"T. BUSHBY."

[Now Captain T. Bushby, of 1840.]

H.M.S. VANGUARD, 80 *guns*.

Built 1835, at Pembroke. Tonnage 2609.

No. 110. *From Rear-Admiral Hon. Sir C. Paget.*

"H.M.S. Bellerophon, Spithead, July 13th, 1836.

"SIR,

"I feel much pleasure in transmitting to the Lords Commissioners of the Admiralty the accompanying report, which I have just received from the Honourable Captain Bouverie.

"I am, Sir, &c.,

"CHARLES PAGET, Rear-Admiral."

[Admiral the Hon. Sir C. Paget died 1839.]

"To the Secretary of the Admiralty."

[Enclosure.] *From Captain the Hon. D. P. Bouverie, R.N.*

"H.M.S. Vanguard, at Spithead, July 12th, 1836.

"SIR,

"Having cruised in H.M.S. Vanguard for a week in the Channel, according to your orders, I have the honour to report to you our return to Spithead; and although I have not the means of making a detailed statement to you of the comparative sailing and of the qualities of this ship, it is right, Sir, that I should furnish you with such particulars as may be useful and acceptable, of the result of our cruise.

"We left Spithead on Tuesday, the 5th instant, and, from that time to the present day, we have had moderate breezes, and on two occasions fresh breezes. In moderate breezes (within 5 points of the wind) the ship's going was from 7·6 to 8 knots.

"In fresh breezes (within 5 points of the wind) under courses, single-reefed topsails, topgallant-sails, jib, and spanker, she went 9·2, and her inclination did not at any time exceed 5 degrees.

"In moderate breezes, going large, with the fore-topmast and topgallant studding-sails, royals, and staysails, she went from 10·2 to 10·6 knots.

"On all occasions her working was admirable, and surpassed our fullest expectations; and I have no doubt that she will prove herself to possess every good quality and to be a perfect man-of-war.

"I have the honour to be,

"Your most obedient, humble servant,

"D. P. BOUVERIE, Captain."

[Admiral Bouverie died 1850.]

"To Rear-Admiral the Hon. Sir C. Paget, &c. &c. &c."

No. 111. *From the same.*

"Bellerophon, September 18th, 1836.

"My dear Sir William,

"I feel much pleasure in telling you that Vanguard is in every respect much improved by the further reduction of ballast, and that her superiority, upon all points of sailing, since we last left Plymouth, has greatly distinguished her.

"If Bellerophon* and Pembroke† may be considered, as I believe they fairly may be thought, above the average in sailing, of our ships of the line, I am persuaded the Vanguard will be found to be a *clipper* wherever she goes, amongst others of the class. In short, I am in admiration of her, and though Bellerophon is not at her best, my friend, Captain Jackson, frankly admits Vanguard's great superiority.

"Captain Bouverie informs me she is sailing only 3 or 4 inches by the stern; certain it is she has never before displayed her good qualities so much as since she has been in her present trim.

"I am equally delighted with her very little brother, the Pantaloon, who has been making poor Scylla appear very low in the scale, comparatively.

"I have only a moment to write these few lines, which I do with all my heart; first, because they are *true*, and because they bestow my humble meed of approbation where it is so justly due.

"Believe me, very truly yours,

"Charles Paget."

"Captain Sir W. Symonds."

No. 112. *From Captain Hon. D. P. Bouverie, R.N.*

"Vanguard, off Scilly, 15th September, 1836.

"My dear Symonds,

"I have received yours of the 10th instant, and thank you for it. The main yard could not have been broken short off in two parts, in the manner it was broken, had not the wood been dry and decayed. Besides which, at the part where the yard broke, there was, or had been, a small bolt, driven directly through the yard, to secure the scarfing, which had admitted water. A bit of wood adjoining the bolt, which is quite dis-

* Bellerophon, 78, built, 1818, by Sir H. Peake.

† Pembroke, 72, built, 1812, by the Surveyors of the Navy.

coloured by the wet, acting on the iron, which bit of wood is as light as a feather, and is now on the table on which I am writing. Mr. Roberts promises that a good yard shall be ready for us when we get back to Plymouth. The yard we now have spreads our canvas very well, now the cleats have been carried out almost to the extreme ends of it. But we did not carry on any topmast studding-sail booms, and happily our squadron do not require us to make use of them, to enable us to outsail them. To-day, we have had a very satisfactory day's sail; at least as far as beating all, while sailing free, very nearly before the wind, with No. 4 breezes, going between 5 and 6 knots, enables me so to express myself.

"We made sail at ten and left off at four. The Bellerophon and Pembroke cast about half a mile astern at the time. At the termination of the trial, Bellerophon was 4 miles astern; the Pembroke 2,400 yards, or nearly 1½ mile. We have since been sparing Pantaloon, and all of them, some sail. I think we have never appeared to move so glibly as now, when she is not more than 3 or 4 inches by the stern, there being on board not more than 10 weeks' provisions, and about 300 tons of water.

"September 16th.—I was half asleep last night while writing the latter part of the above; I did not finish the last sentence, and have just done so. We have, to-day, been maintaining a more decided superiority over the Bellerophon, and Pembroke too, than we ever did before. For hours, from the first of the daylight till between one and two, we spared Bellerophon her courses; the wind being a-beam or rather before it, a fresh breeze going from 7 to 8½ knots, with single-reefed topsails, foretop-gallant sails, jib, and spanker. The Pembroke we spared the foresail. Between one and two, the Pantaloon's and our signal was made, to look on a certain bearing, right ahead in the morning. The Admiral inquired by signal how many knots we were going, just after we made sail, which was 9k. 6f.; but on the wind moderating, and our going less than 9, I set the flying jib and staysails, and at one time afterwards, we went 10k. 6f., when the Pantaloon dropped considerably, as she had nothing more to set. When we did not go more than 9 knots she kept her bearings on; when we went more, she dropped.

"The little brig is looking well, and so is this ship, for we have painted without having been able to get an extra supply of paint, on account of caulking. The statement of those in office is, that the ordinary supply of paint now is so liberal, that it is intended to cover all extraordinary demands for its use, such as caulking, as well as the ordinary calls for it. I think you are

not likely to have another look at the ship, but I believe you would be better pleased than you have yet been; she works like a top. By-the-by, Hardy is said to have told Walker, that the ship rolled so much that you could hardly stand on her decks; I will ask him about this to-morrow. It is a most extraordinary thing that such a false statement about the ship could have reached Sir W. Gage. I no sooner received your letter than I sat down and wrote him a few lines to undeceive him, desiring him to appeal to the Captains of the Cornwallis and Malabar, as to the correctness of my statement in favour of this ship.

"I am, &c.

"D. P. BOUVERIE.

"P.S. — Sept. 17 has been a very satisfactory day with us; by and large, we have beat them all. To-morrow we go into port.

"Sir W. Symonds."

No. 113. *From the same.*

"Vanguard, Lat. 42° N., Lon. 9° 50′ W., Oct. 24th, 1836.

"MY DEAR SYMONDS,

"You will have heard of our having sailed on Thursday afternoon; and here we are, after the lapse of little more than four days, (this day having been all but calm, and one other day very nearly the same,) to the south of Cape Finisterre nearly a degree. We have been set very much to the southward, for we have had no great deal of wind, nor have we carried much sail. I wish it had been in my power to have informed you, that we had beat the Inconstant, but this I cannot do. I can, however, add, that she has not beat us much in a trial of eight hours yesterday; a fresh breeze, about a point abaft the beam, all sail set, and the ship going from 8·6 to more than 10 knots. By the end of that time, she was about 2 miles ahead of us.

"I think last cruise she would not have been in that position. The provisions and other things we have taken on board, have not tended to improve our sailing, relative to others of the squadron. Bellerophon sails much better in comparison with this; and the Hercules *, from her docking, is wonderfully improved, and is as much the Pembroke's superior in sailing, as the Pembroke has hitherto been superior to her. The Pantaloon, too, is filled up with provisions, too much for her fast sailing. As for the Pique, the Inconstant † seems to have the advantage of her; and we

* Hercules, 72, built, 1815, by the Surveyors of the Navy.
† Inconstant, 36, by Capt. Hayes.

also have. But when trimmed otherwise, she may perhaps outsail us both. It is evident, by the signals he has made, that Rous wants to sail the Pique, on some other trim, that is, more by the stern. There never was anything more surprising, than the change that has taken place in the Hercules, from her copper being cleaned: on the same account as she went into dock, we ought, by rights, to have the same advantage; at least so says Paget: but I could not have made the application with any chance of success, and so did not. Indeed we had, at last, so little warning that we were not to expect to return to England, that we have done nothing about our hold, which must stand over till we reach Malta. But even then, I doubt whether we shall think of reducing our ballast below 70 tons.

"Oct. 27., I am called on to close this in haste, we having to discharge our marines into Pembroke, and send her into Tagus; we ourselves, I believe, going on, without delay to Cadiz.

"We have had very calm and fine weather. The frigates have been trying together, being sent ahead to look out; and the Pique seemed to have a decided advantage over her opponent. We have had no further trial with them, but I am satisfied with the manner in which this ship moves. We are about to anchor in Cascaes Bay, to put the marines readily on board the Pembroke.

"I remain, &c.,
"D. P. BOUVERIE."

"Sir W. Symonds."

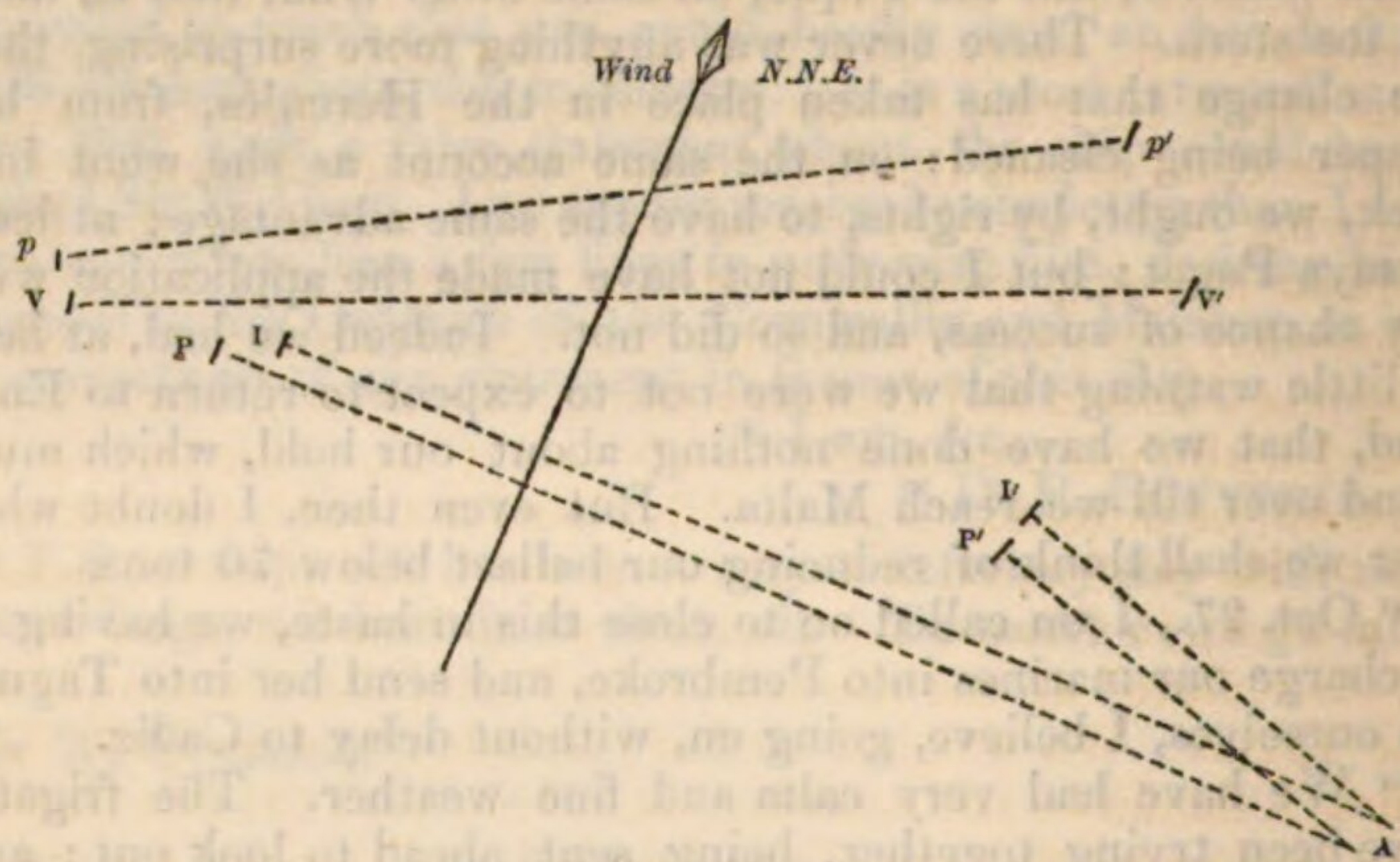
No. 114. *From the same.*

"Vanguard, off the Rock of Lisbon, Oct. 29th, 1836.

"MY DEAR SYMONDS,

"I know not whether I may have an opportunity of sending to you direct, I mean by the Inconstant, on board of which Sir C. Paget's flag is now flying, for I have my orders from him to proceed to Malta; and therefore, though the second day since they have been in my possession is now closed, yet it is doubtful whether I shall have any further communication with him, except by signal. I cannot, however, delay the pleasure of addressing these few lines to you, in hopes that they may reach you soon, to inform you that we have had a great triumph over the Inconstant and Pique to-day, in sailing by the wind. We made sail at half-past 9, and made some such tacks as in the annexed sketch. We made sail, not in consequence of any signal for a general chase, N.E., or anything of that, but after a signal had been made to let a reef out of the foresails,

and to try rate of sailing without specifying in what direction; and really the frigates, at first, went so much from the wind, that



I. Inconstant
P. Pique
V. Vanguard
p. Pantaloon
} At half-past 9, when sail was made.

I', P', V', p', The different vessels at 10m. before 3; the Inconstant being 2½ miles right to leeward of Vanguard.

A. Where frigates tacked, the Inconstant, the most distant, being hull down from Vanguard about 3 points on lee bow.

I was in doubt whether it was intended for a trial by, or off the wind; and had to inquire by signal, when my 'Interrogative, by the wind,' was answered by the affirmative flag.

"I think Sir C. Paget is very partial to your ships, and wishes them well; but on the occasion of the trial to-day, as on almost all former trials, if not every one of them, there is some ground of complaint that he does not make known in a sufficiently clear manner what he wishes to be done; and that he does not allow the officers of each ship, the liberty of doing it in the manner — I mean, under the sail — they may think best adapted to effect the object proposed. To-day, the Inconstant, for instance, had her double-reefed topsails hoisting as high as ours or the Pique's single-reefed topsails; and had we been at liberty to make what sail we thought proper, there can be no doubt but both these ships would have had single-reefed topsails, and, in fact, have been on a par with the Inconstant.

"The brig, from being deeper, has not sailed so well as she used, relatively to the rest of the squadron, since we left Plymouth; but to-day she drew out to windward of us a good bit. We have had a great advantage for a ship of this class over fri-

gates, in going to windward; but I am sure it would have been much greater, had we had more sail, which we could have carried with perfect ease, as you may judge when I add that we never went above 8½ knots. But, I suppose, the Admiral, this morning, was afraid to trust to our discretion, on the principle that a 'burnt child dreads the fire,' he having permitted some very stiff carrying sail yesterday afternoon, which ended in the Bellerophon carrying away her fore-yard, just in the same place where our two yards broke off,—the weather quarter; on which Captain Jackson and Berkeley being, like myself, already provided with their orders, and liberty to put to,—the former was advised, or directed, to go to Gibraltar for a yard, the latter to go to his destination at Cadiz.—A good and pleasant passage of a week, to Cascaes Bay, where we anchored at noon on the 27th; removed all the marines to the Pembroke, and sent her up the Tagus. We weighed anchor yesterday, and so little did I think I should be still working about here with the two frigates, that having taken leave of the Admiral, and received my orders, I bore away to the south to proceed on my voyage, and fired, as I thought, a farewell salute in compliment to him; but it appears he is much too fond of us to part with us yet.

"To-night, running to the southward, on our direct course. It was remarkable how much more the Inconstant heeled over than the Pique to-day. By some mistake, as I suppose, yesterday, the Pique made 11° heel, when the Inconstant only showed 10°. To-day, we have heeled 6½° or 7°, yesterday 8°.

"November 2nd. We have to-day parted with 16 tons more ballast, to the Magicienne, making her quantity 92 tons, and ours 70. We shall now be satisfied.

"I am, &c.

"D. P. Bouverie.

"P. S. Cadiz Bay, Nov. 1st.—I closed this in greater haste than I need have done, for the Admiral, instead of despatching us, has hoisted his flag in the ship, and brought us in her. He seems highly pleased with all he has seen of her. We had yesterday a long trial, in beating to windward, with the frigates. The Pique, at last, had a very inconsiderable advantage; the Inconstant some: the Vanguard maintains her reputation.

"D. P. Bouverie."

"Sir W. Symonds."

No. 115. *From the same.*

"Vanguard, at Malta, November 12th, 1836.

"My dear Symonds,

"You will be glad to know that since our trials with

the frigates, of which I think you may have heard from Sir C. Paget, as well as from myself, we have maintained the reputition of the ship, by making a good passage from Cadiz, of one week, to this place, where, all the moorings being occupied, we dropped our anchor yesterday in the afternoon. The Bellerophon sailed for Gibraltar on the 1st; we left Cadiz on the 4th, and got in before her.

"The ships, we believe, are the Thunderer and Edinburgh: the former goes to Plymouth; the latter, after taking the marine artillery to Lisbon, to Portsmouth. We are to have our general caulking, and I hope by the Maltese; but that is not quite decided; for the sake of economy, the caulkers of the squadron are now sometimes employed to do this work. We are all going to rout up our hold, and restow it more equally over the main hold,—the ballast that remains on board, viz. 70 tons. By-the-by, I find that the Thunderer *, which sailed from England with 115 tons of ballast, has now on board 250. The Russell †, however, still outdoes her, having 260.

"November 17th. You will be glad to hear that we have the Maltese caulkers, and after several days of rainy weather, have fine weather for their work. We have restowed the iron ballast, having now nothing abaft the after part of the square of the main hatchway. The ballast is not winged up, and goes as far forward as the square of the fore hatchway.

"Yours truly,

"D. P. BOUVERIE."

"Sir W. Symonds."

No. 116. *From the same.*

"H.M.S. Vanguard, Plymouth Sound, 5th October, 1836.

"SIR,

"In reply to your memorandum of this day's date, I have the honour to inform you, that during the late heavy gales of wind, H.M. Ship under my command was as easy as could possibly be expected, not straining one thing in the least, and not slackening in the least, either her stays or rigging. In her pitching motion she was particularly easy, and in her rolling there was nothing like a jerking motion.

"As to our keeping to windward, relatively to the Bellerophon and Pembroke, it appeared to me that we had a decided

* Thunderer, 84, a copy of French Canopus, 1831.
† Russell, 72, built, 1822, by Surveyors of the Navy.

advantage over them, after we had increased our after-sail by substituting a mizen for the mizen trysail, which was done late on the evening of Saturday last.

"The fore-yard was carried away, when under reefed courses, and the treble-reefed topsails, on Sunday evening last, in a strong squall, which came on suddenly, when standing under the lee of your flag-ship to take our station on your lee beam; and I attribute this misfortune to the fore-tack giving way, for the wood of the yard is tough and good. I beg to observe, that before the lower yards of this ship were rigged, in a letter dated the 2nd April, 1836, I, from my own opinion and that of others competent to judge as to their insufficient strength, applied, that a strong oak batten or fish should be placed on each, and hooped in; but my request was not acceded to.

"This last cruise having confirmed the opinion entertained on board, of the yard, I had directed the carpenter, before this accident happened, to report it on our first arrival in port, as requiring to be strengthened.

"I have the honour to be, &c.

"D. P. Bouverie, Captain."

"Rear-Admiral the Honourable Sir C. Paget,
&c. &c. &c."

No. 117. *From Mr. W. Miller, Master, R.N.*

"H.M.S. Vanguard, Bay of Tunis, 9th January, 1837.

"Dear Sir William,

"Having your permission, I had intended communicating with you, from time to time, on the subject of the alteration in stowage and trim of our *barkie;* but being aware that Captain Bouverie, was in constant communication with you on the same subject, I thought it was needless to increase the correspondence. However, since our last trial, in which we touched *the frigates* up in *beautiful style,* we have made great alterations in the *stowage of the ballast,* stand of the masts, sails, etc., which, judging from the sailing and working of the ship on her passage here, we imagine has greatly improved her.

"*The* 70 *tons* of ballast are now stowed as per enclosed plan, which, with 350 tons of water, from 70 to 80 tons of coals, and 4 months' provisions, will bring her about 4 or 5 inches by the stern, drawing, forward 23 feet 3 inches, aft 23 feet 7 or 8 inches. We have regammoned the bowsprit and raked main and mizen masts a little more. . . I shall then be able to judge whether it will be prudent to part with any more ballast;

10 or 15 tons more would clear us of the ballast in end on the keelson and the riders, which would be desirable. Great improvements have been made in our orlop; it is now the admiration of all our Naval visitors.

"I am very sorry that the Vernon has been attacked with the dry rot. It was very evident that she had too much ballast, in her trials with the Barham. Light, variable, Mediterranean weather ought to have induced them to get rid of it before now. I am still in hopes of a trial with Barham and her.

"I remain, &c.,

"W. MILLER."

"To Sir W. Symonds."

No. 118. *From Capt. Hon. D. P. Bouverie, R.N.*

"H.M.S. Vanguard, Malta, 27th January, 1837.

"MY DEAR SYMONDS,

"I have to thank you for two letters received by the last packet, dated Nov. 18th, and Dec. 29th. One of these contained that precious document, Captain Hillyar's * report of our trial of sailing, on the 29th October, which I have shown to Walker and Estcourt, and which has surprised them both not a little. It has surprised me less than it otherwise might have done, as I heard Sir C. Paget say, that Captain H. calculates that if there had been no change of wind, the advantage of the Vanguard would have been next to nothing. I think I told you before, that on that day, to prevent any mistake about its being a chase to windward, I inquired by signal whether it was so, and was answered in the affirmative. What business, then, had the Inconstant to be at one time full down on our lee bow?

"I say the Inconstant only, though the Pique was in the same situation, owing to Rous's eagerness in taking the same direction as the Inconstant, with whom he wished to try his ship, instead of hugging the wind, without reference to her, except as to getting to windward, which would I think have given him a more decided advantage. All that they say about the advantage Hayes has gained by making the hull of his ship lighter, and by having succeeded in having lighter guns, is very clear and convincing. I can well conceive yours is a difficult and uphill task; but persevere as you have hitherto done, undeterred by difficulties, and look for that which I don't doubt your having ultimately, complete success. 'Magna est veritas et prævalebit.' I write now, though there is no immediate prospect of

* Captain W. Hillyar was expressly ordered on board the flagship, Bellerophon, to report on the trials to the Admiralty.

sending this letter, for I shall not send it by the Vernon, on account of the length of time she is likely to be on her passage; but I write because there is no knowing how soon I may be separated from this noble ship, for the plan of which your country is, in my humble opinion, deeply indebted to you. I don't know who my successor is to be, but I hope he may be some one whom you know and approve of, who will do her justice.

"You will be sorry to learn that we have had no opportunity of trying with the Vernon, nor with any other ship since we have been in the Mediterranean; not even with the Harlequin, whose Captain has been under my orders on the little service on which I have been lately employed, I mean a trip to Tunis. She was not ready to sail for 4 or 5 hours after we left this place, and the Consul was not ready with his letters, when we left Tunis to return here. She seems a very fine vessel, and to be well commanded; but *this* ship seems to move most particularly well, 4 or 5 inches only by the stern, and drawing but little more than 23 feet. I think you will be pleased to hear of the confidence we have in the ship, in having worked through the Narrows, yesterday morning, the wind being at S.W., or directly out of the harbour. We made 4 tacks, the first from the starboard tack just without the point of Riccasoli, the third just within and to windward of that point, the fourth immediately under the outer Barraeca; and if there had been any of the boats of the squadron in attendance on us, we should not have had to let go an anchor, but at once have made fast to the buoy, just below St. Angelo Castle. I think this would have puzzled our friends in the Rodney, or I am greatly mistaken.

"Looking over an old log-book of mine, I found that record of the old Lancaster*, to which I once belonged, which contrasts so remarkably with what is the case in this ship, that I am anxious to mention it to you.

"The Lancaster had, at one time, a weight of ballast, 261 tons of iron and 231 tons of shingle, more than $\frac{1}{3}$ of the measured tonnage of that ship, which was 1430. This ship has now quite as much ballast as is necessary, and that is not quite $\frac{1}{37}$ part of her measured tonnage. I did not think it would be desirable to reduce the ballast below what she now has, though I do not think there would be the least risk in sailing her without any; or that, in that case, she would be not only, not as crank as many other ships, but not crank at all. Reducing the quantity of ballast was one of the methods I had recourse to, in order to

* Old Lancaster, 64, broken up. The new Lancaster, 50, was built 1823.

improve the old Windsor Castle's* sailing. I reduced her ballast, from 180 to 140 tons, and am satisfied that every ton taken out of her made her a better ship. I would, that it may be my lot to try one of your 3-deckers, the Victoria †, one of these days, if you do not do so yourself. — Walker is a most invaluable officer; the very best, without any exception, I ever knew. I am rejoiced to hear nothing of his moving homewards on account of my move. I will, before I close this, have a plan of the alterations we have made and propose to make, made out for you, which I trust you will approve, and if so, get ordered for other ships. We have taken away the Lieutenants' cabin from the gun-room, with their free will and consent, and to the great delight of the mates and mids, and with no small advantage to the ship. I hope I shall be able to talk with you about the plan in the spring.

"With reference to what I have written above, about the Lancaster, had she had no more ballast than a due proportion to what is in the ship, she would only have had 39 tons; — on the other hand, had this ship a due proportion to what was in the Lancaster, she would have had on board 896 tons. * * *

"It would do you good to see the ship now, the masts raking fairly and evenly with each other, and as much, or very nearly as much, as we could wish; the poop lowered a few inches; and as for paint and other matters of that kind, getting, or got, as we could wish: but above all the ship's moving would delight you.

"Very sincerely yours,

"Sir W. Symonds." "D. P. Bouverie."

No. 119. *From Commander B. W. Walker, R.N.*

"Vanguard, Malta, March 8th, 1837.

"My dear Sir Pulteney,

"I fear that you must think me a most ungrateful person for not having written to you long ere this, but I trust that you will pardon my silence, and attribute it to no other cause than that of my being loath to give my humble opinion respecting the Vanguard. I feel that my feeble pen is quite inadequate to do justice to all her good qualities as a man-of-

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* Old Windsor Castle, 76, was built, 1790, by Sir T. Slade, and broken up 1839. A new Windsor Castle, sister to the Queen, is now the Duke of Wellington.

† Victoria, now building at Portsmouth.

war; in my opinion, I never saw a ship so perfect in every respect. She is very handy, and as a proof of that assertion, I will mention two instances in which Vanguard's working qualities must be manifest. The first was, in working into the Cove of Cork, with the wind dead out, without courses, being obliged to shorten sail to keep our station astern of Bellerophon; and secondly, on our return from Tunis, although the wind was out of the harbour and very baffling, we worked up to Fort St. Angelo, making four tacks inside the entrance. I have had many opportunities of judging of her qualities as a sea boat. We had one heavy sea when with Sir Charles Paget's squadron, and no ship could have behaved better. She pitched *very easy*, and although she rolled rather deep, still it was particularly easy and without straining a rope-yarn. We have now only 70 tons of ballast on board, one-half the quantity she at first started with. Still I consider her a very stiff ship—one that will, I feel confident, outcarry any in the service, and be able to fight her lower-deck guns, when other ships would be obliged to keep their ports down.

"Of her superiority in sailing, there can be no doubt; but I do not think that we have yet found out what she can do, for with all the trials with other ships, she never had enough canvas; in fact I have known her during a trial to roll to windward for want of sail. I fear, my dear sir, that you have given me much more credit about the order of Vanguard than I deserve; but I can assure you, that I have had much uphill work. Still, for all that, I shall leave Vanguard with regret, for she is such a splendid ship.

"Believe me, my dear Sir, yours, &c.

"B. W. WALKER."

[Now Capt. Sir B. W. Walker, Bart., Surveyor of the Navy.]

"Admiral Sir Pulteney Malcolm, G.C.B., &c. &c."

No. 120. *From Capt. W. H. Dillon, R.N.*

"Russell, at Sea, May 30th, 1837.

"MY DEAR FELLOWES,

"I have made a report of your case to the Admiral, and your boat had better call here and take my letter, pending the appearance of the Nautilus.

"I made no signal to you yesterday to chase; *so*, it was your own *doing*. Your ships' capacities in weathering are truly wonderful. What a pity the accident of your main-topmast yard; I was on the point of making a signal to you, relating to

its appearance, previous to your making sail. Russell never strained a rope-yarn, yet I am not satisfied with her sailing. The Asia had jib and driver more than we during the chase, and whilst your lower deck ports were up, we were lying over 11 degrees. I hope the Admiral will order you in; and if I do not shake you by the hand before you depart, God bless you, and I hope every good may attend you.

"Sincerely yours,

"W. H. DILLON."

[Now Vice-Admiral Sir W. H. Dillon.]

"Captain Sir T. Fellowes, C.B.*, &c. &c.
H.M.S. Vanguard."

No. 121. *From Captain G. B. Martin, R.N.*

H.M.S. Caledonia†, off Sicily, 26th January, 1837.

"MY DEAR SIR WILLIAM,

"We have been cruising off this coast and at Malta, in company with Vanguard, Rodney‡, Russell, and Asia §; and our cruise has afforded us the opportunity of witnessing the extraordinary capability and powers of sailing possessed by the Vanguard.

"The first day we had light winds; the Admiral sending the Nautilus to look out S.E. When she was distant about 4 miles, dead to windward, the general signal for chase was made, when the Vanguard, in three tacks got round her, 36 minutes before the Rodney; the Russell, 8 minutes after Rodney; and the Asia did not round her at all, though she had scarcely fair play.—The next trial was on a wind; as much as we could carry well, at times a fair, fresh breeze, single-reefed topsails and topgallant sails. The Vanguard hauled out of the line *just like a cutter*, and went away to windward of the whole squadron, and was 6 miles on our weather beam in $3\frac{1}{2}$ hours. We were then on the larboard tack, and I do not think the Rodney would have weathered us if she had tacked. This was done without a tack.

"The next, was off the wind, a good fresh breeze, a point abaft the beam, as much as we could carry; royals, fore topmast, and topgallant-studding sails, the yards looking rather queer; the general signal for chase S. by W. We were then in line of

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* Rear-Admiral Sir T. Fellowes died 1853.

† Caledonia (flag-ship), 120, built, 1808, by Sir W. Rule; now Seamen's Hospital Ship, off Greenwich.

‡ Rodney, 92, built, 1833, by Sir R. Seppings.

§ Asia, 84, was copied from the French Canopus, 1824.

battle, on a wind; we, of course the leading ship, the wind W.N.W. varying a little. The line was as follows, Caledonia, Russell, Vanguard, Rodney, Asia, so that the Vanguard had a trifling advantage, but she went away, and after a run of 4 hours, we going 9 and 10, she left off, I should think, 7 miles ahead — Rodney next — then Russell. I will desire the Master Mr. Bellamy, to make you two diagrams, and then you can satisfy Sir W. Symonds, who will be naturally anxious about his ships. Rodney is a magnificent man-of-war, but is heavy, and I think has too much ballast, 170 tons; carries her port an awful height out of the water, and is in very good order. She has one of the finest set of quarter-deck officers I ever saw, and all wrapped up in their ship.

"G. B. MARTIN."

[The late Captain G. B. Martin.]

"To Sir W. Parker."

No. 122. *From Captain Hyde Parker, R.N.*

"Rodney, off Malta, 28th June, 1837.

"MY DEAR SYMONDS,

"Many thanks for your note by last packet. I was ordered to Malta, to carry the sentence of a court-martial into effect, on a marine that was condemned. Rodney has been inspected by the Admiral and all the judges at Malta, and they allow her to be what a man-of-war ought to be, and I trust also in good discipline; on that account there is no little talk and rumours about us. Your ship, the Vanguard, is in good order, and the man who now commands her, rely upon it, will do her justice.

"We have been out from Malta now a fortnight, cruising between Malta and Sicily, and have had three trials of sailing; the first on the 14th June, beating to windward, with a light breeze, all sail set; and in $2\frac{3}{4}$ hours the Vanguard beat Rodney and the rest of the squadron 2 miles dead to windward. — The second trial was on the 20th June, with single-reefed topsails and topgallant sails; a fresh breeze at starting, water smooth. The Vanguard went to windward of Rodney, in a most extraordinary way; in two hours and a half she weathered $2\frac{1}{2}$ miles dead in the wind's eye; in short, I would not have believed it possible if I had not seen it. Our inclination was the same when the signal was made, viz., 3° 20′.—The third trial was on the 24th inst.: a fresh wind a little abaft the beam, as much sail as we could carry, viz., single-reefed topsails, royals, fore-topmast, and topgallant studding-sails. We were going 11 knots, but Vanguard ran away from Rodney very considerably, although we beat the other ships as much. In short, we have

no chance with Vanguard, I am positive, in sailing on any point. Rely on it, that Commander Walker will do her great justice; I do not think she could be in better hands. I never knew him before, but I think he is an excellent officer. I am rejoiced to see her so well commanded. She is a beautiful man-of-war, notwithstanding what your enemies may say. Rodney is certainly a splendid man-of-war and has plenty of stability; but I never thought, from the first, that she sailed fast.

"Yours most sincerely,

"HYDE PARKER."

[The late Rear-Admiral Hyde Parker.]

"Sir W. Symonds."

No. 123. *From Captain W. Fisher, R.N.*

"Asia, off Malta, 29th June, 1837.

"MY DEAR SYMONDS,

"I have never hitherto been able write you with any pleasure. You have had few friends at head quarters here. Vernon was always depreciated. Corry is a dangerous opponent. He managed his ship well; and in society, his frank, open manner of talking, for he is popular and agreeable, gave M'Kerlie no chance. Vernon never had fair play here in any way.

"Vanguard has silenced every one. I never saw one ship beat another, by and large, as she has beat us all; her stability too is perfect. I have sent Sir William Parker a diagram of the only trial, on a wind, which we have had with a breeze. The style in which Vanguard at once fore-reached and weathered, exceeded any thing I ever saw. We weathered considerably upon Rodney, but we laboured under two disadvantages; we had taken in our provisions at sea, and could not trim accurately. Rodney and Vanguard took theirs in at anchor in Malta. We, also, being sternmost ship of the lee line, always start to disadvantage, and have great difficulty in passing Caledonia.

"If I pass to leeward of her, I get becalmed and thrown out; when I pass to windward of her, I am obliged to sail the ship close, till I can weather her at a sufficient distance to satisfy the Admiral; and in our short trials, this occupies a large proportion of the time, very disadvantageously to us. Walker manages Vanguard beautifully. The only objections I now hear made to her are, that she does not mount so many guns as she ought, and that her hawse holes on the main deck cannot be worked. It, however, cannot often be required to use them, and the fact of the shot from the lower-deck bow guns crossing each other, is inestimable. I trust and believe that your

triumph will be complete; but how you stand badgering and abuse as you do, is to me incomprehensible; half of it would kill me in a week.

"Yours sincerely,

"WILLIAM FISHER."

"Sir W. Symonds." [The late Captain W. Fisher.]

No. 124. *From Commander B. W. Walker, R.N.*

"Vanguard, off Malta, 28th June, 1837.

"MY DEAR SIR,

"I have very great pleasure in forwarding an account of the late trials with the squadron, and beg to be allowed, at the same time, to congratulate you on Vanguard's success, which I trust has been so evident to all, that there can be but one opinion as to her decided superiority in every way. We left Malta on the 12th with the squadron, consisting of the Caledonia, Rodney, Asia, and Russell; since which time we have had three trials, two on a wind, and one with the wind a-beam.

"The enclosed diagrams of facts (which Estcourt has been good enough to make out) will speak for themselves, without my feeble pen attempting to add more. Still I cannot refrain from quoting a passage in a note just received from an officer on board the Rodney, to convince you that others agree as to her splendid qualities. He says: 'I am delighted to see that Vanguard is perfection; her sailing qualities are, in my opinion, miraculous, and have completely silenced and convinced the most prejudicial; but independent of that, she looks, in every way, so like a man-of-war, that she is the admiration, if not the envy, of all on board here.' In addition to the above, you will, I am sure, share with me in the gratification I felt on receiving the hearty congratulations of Captain Hyde Parker, of the Rodney, who, at the Admiral's table, expressed his admiration of the wonderful performance of this ship, and appears to recall with delight his having been shipmate with her constructor.

"All this he has doubtless told you, as he assured me that he should write to you by the first packet. These encomiums, publicly expressed by such an officer, will, I trust, have due weight, and open the eyes of those who, as yet, have been deceived by the shameful accounts which have from time to time appeared in the public papers respecting this noble ship. I am ready to admit that Vanguard's officers are proud of, and liable to say more of, their ship than others; but what has been said by the Captain and officers of her rival (if I may be allowed to

use the expression) will, I trust, convince even her enemies that she deserves the good opinion of all who have the service at heart. As for my own part, I never saw her equal; the difference between this ship and others in working, as well as sailing, is something quite extraordinary. She will, I am confident, tack or wear in half the time the Rodney will be performing the same evolution. I need not tell you that we can carry our lower-deck guns out, when other ships are obliged to close their ports.

"Before we left Malta the Admiral issued an order for the squadron to complete to two months' provisions, which we strictly obeyed, and filled 285 tons of water; but some of the other ships thought to improve their sailing by having more; some took three and others four months'. When we left port, on the 12th, our draught of water was, forward 22 feet 10 inches, abaft 23 feet 3 inches. We have always considered 4 or 5 inches by the stern to be her best trim. The great superiority, which was so evident to all on our first trial, raised the cry that Vanguard was 'flying light,' in consequence of which the squadron were ordered to complete to four months'. We accordingly proceeded to Bighi Bay, and took that quantity on board; at the same time completed water to 355 tons. We rejoined the squadron on the next morning at daylight, and that afternoon, the wind being favourable for a trial, at one o'clock the signal was made to try rate of sailing, when, to the astonishment of all, Vanguard started from her place in the line (third), and was in a few minutes on the weather bow of all the squadron; and had not the wind favoured the sternmost ships, both in strength and deviating (a signal was made by Rodney to that effect), the result of that trial would have been more satisfactory.

"We, half an hour before the close, made the signal, 'Have lost the wind.' On the 25th we had a good breeze from the west ward, when the signal was again made to try rate of sailing. Just before 2 P.M. we started, steering south by west, the wind being nearly a-beam. We made sail under single-reefed topsails, royals, topgallant, and fore-topmast studding-sails, going at first 11 knots 2 fathoms. Vanguard did not, I assure you, remain long third in the line; but starting off, soon left the squadron astern. This being the Rodney's best point of sailing, and Vanguard's worst, of course we felt most anxious for the result; but we were soon relieved, and found, at the end of three hours and a half, that we had left the Rodney 3½ miles astern, Russell 5 miles, Asia 6 miles, and Caledonia 7½ miles: although the wind again favoured the sternmost ships; for as we approached the land (Gozo) we had less wind, whilst those astern brought up a stronger breeze (a signal to that effect was made by Van-

guard); our rate of going, towards the close, was only 9 knots. The result of these trials must have convinced all, that, whether light or deep, on a wind or off the wind, in light or strong breezes, Vanguard is far superior to all; and that she may ever remain so, believe me, my dear Sir, is my most fervent wish.

"You may rest assured that no exertion on the part of those on board will be wanting to give her the lead in everything. You will perceive, by the diagrams, that the angles were taken after we had started; which hardly does justice to the Vanguard, for, on first starting, the manner in which she sprung from her place in the line was really wonderful. She was, in consequence, some considerable distance ahead before the officers had time to take the angles of the different ships.

"Believe me, &c., &c., &c.

"B. W. WALKER."

"Captain Sir William Symonds, R.N.,
Surveyor of the Navy, &c. &c. &c."

No. 125. *From Captain Hyde Parker, R.N.*

"H.M.S. Rodney, Malta, 29th June, 1837.

"MY DEAR ADMIRAL,

"I am just anchored in Bighi Bay, for the purpose of completing my water. We have had three trials with Vanguard. The first was in light winds, all sail set to windward; she beat us 2 miles in two hours and three quarters.—The second trial was with a fresh breeze, single-reefed topsails and topgallant sails, on a wind. This day the Vanguard went to windward of us in a most extraordinary manner; I would not have believed it possible if I had not seen it. She gained 2½ miles dead to windward in two hours and a half. When the signal was made to the ships to show their inclinations, ours was the same as Vanguard's, viz. 3½°; our lee ports up the whole time.

"The third trial was with the wind a point abaft the beam, as much sail as we could carry, single-reefed topsails, royals, foretopmast and topgallant studding-sails. The Rodney was going 11 knots. The Vanguard beat us as much to windward as a mile an hour. This day we beat the other ships as much, more particularly the Asia. We likewise had the advantage of the other ships on a wind. The Asia does not sail, or she is not in trim; but the dirty Russell sails well in smooth water. She is the worst man-of-war in appearance I have seen since the peace. I do not think that Rodney has any chance with Vanguard.

We certainly appear undermasted, that is, above the lower masts.

"HYDE PARKER."

"To Sir William Parker."*

No. 126. *From Captain W. Fisher, R.N.*

"Asia, off Malta, 3rd July, 1837.

"DEAR SIR WILLIAM,

"Our trials have been few and short, for want of steady breezes. As soon as the ships spread, one or other makes signal, 'Lost the breeze.' I enclose you a diagram of the only trial at which I was well enough to attend. We laboured under two disadvantages: first, we had just taken in 3 months' provisions at sea, without the means of trimming properly; Vanguard and Rodney having taken in theirs at Malta. Secondly, we start from Caledonia's lee quarter, and consequently must either pass to leeward and be becalmed by her, or sail the ship close to the wind till we can weather her far enough to leave the Admiral no cause of complaint; and this, in a very short trial, expends a considerable portion of the time disadvantageously. I consider Asia more weatherly than Rodney, and am confident of beating her on a wind. Vanguard admits of no competition. I never saw anything like her.

"I remain, &c.,

"WILLIAM FISHER."

"Sir W. Symonds."

No. 127. *From Commander B. W. Walker, R.N.*

"Vanguard, off Genoa, September 5th, 1837.

"MY DEAR SIR,

"The time, I trust, is not far distant when all will be ready to admit the decided superiority of the Vanguard, and every Briton feel obliged to you for having added so splendid a ship to their Navy; for the more I see the more I am convinced that she far surpasses all in the service. I hope you have, long ere this, seen the official report of the fourth trial we had with the Asia and Caledonia, on a wind, with a head sea

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* *Extract of a Note from Sir William Parker to Sir W. Symonds.*

"27th July, 1837.

"The accounts of the Vanguard's sailing are most satisfactory; she beat Rodney and all others, as much as Pantaloon did the Charybdis; and both by and large."

under single-reefed topsails, topgallant-sails, courses, jib and driver. We, in two hours and forty-five minutes, weathered on Asia 2 miles 800 yards, and headed her 4 miles 370 yards; weathered on Caledonia 4 miles 270 yards, and headed 3 miles 850 yards. The Medea, who was in company did wonders.

"On that day Vanguard was for the first time tried on an even keel, and certainly the result proves that she can sail in that trim; in fact, my dear Sir, I do not think that we have yet found out half her good qualities, for had you witnessed her performance since our arrival off Genoa, you would have been delighted. I have never seen anything like it since I have been at sea. I must first tell you that we left Barcelona with the Princess Charlotte, and had a good run to Genoa. I must not add that part of the time we had our topsails on the cap, and were obliged to yaw to keep our stations; but as we had no trial I will not say more, my present wish being to give you an account of this ship's splendid qualities as a sea boat.

"On the 1st, when the Admiral ran into Genoa, it was blowing strong, and finding that there was not much room, we made our signal, 'Keep under sail until it moderates.' That evening it blew hard on shore, with a heavy sea, and we were obliged to carry sail to work out of the Gulf. We accordingly made sail under close-reefed topsails and reefed courses; and the beautiful style in which she worked off a lee shore was the admiration of all on board, who were not a little surprised and delighted the next morning at finding themselves under the lee of Corsica. Yesterday, when about 20 miles from Genoa, we had one of the hardest gales, and with more sea than I have ever witnessed in the Mediterranean, when she again behaved most nobly, and under a main-topsail, reefed foresails, and storm staysails, went over the sea like a duck, without straining a rope-yarn. In fact she is, in my humble opinion, a most splendid sea boat.

"You kindly ask my opinion as to the Vanguard's armament. Depend upon it, my dear Sir, she will be able to carry 68-pounders on her lower deck with ease, and without affecting her sailing qualities. I have always been an advocate for them, and have a thousand times regretted their not being on board; for so many people, after having seen this noble ship, have been sadly disappointed at finding that her guns are the same as those on board the common herd.

"Pray believe me, my dear Sir,
"Most faithfully yours,
"B. W. WALKER."

"Sir W. Symonds,
&c., &c., &c."

No. 128. *From the same.*

"Vanguard, 12th December, 1837.

"My dear Admiral Bouverie,

"I have long intended writing to you to tell you how well the old ship behaves, and I now take up my pen to say that there is nothing that we have met with that can in any way compete with her; they all give it up as a hopeless case.

"We are now under the hands of the caulkers; having been very badly caulked before, she required it very much now, and has in consequence taken an immense quantity of oakum. After a strict examination they cannot discover the least straining in any one part or place, but the oak plank; which, from not being well seasoned, has shrunk very much, and would have, if left much longer, I have no doubt, produced the same consequences as in Vernon. The fir plank has not shrunk in the least, and I do not doubt but at the end of our time we shall be as fit for recommissioning as she is at this moment. The others have all undergone a thorough refit, while we had not a single chafe, but merely lowered the lower yards to mend the service of the trusses and the lift blocks, and to examine the other rigging of the yard. So much for a very *uneasy* ship, as they will have it she must be.

"We are getting a lithograph drawing of her, two views, done by Noel; when they are finished I will send you home a couple; I shall also send a couple to Sir W. Symonds, who, I am grieved to hear, still suffers from his fracture. We are all very anxious about him, and shall be sincerely rejoiced at his being better. I have not written to him lately, fearing that the trouble would be painful to him, poor fellow; though I wished to congratulate him on the promotion of his son, so complimentary to him. Should you be writing to him, perhaps you will have the goodness to convey to him these my sentiments and best wishes for his speedy recovery.

"I am, &c.,

"B. W. Walker."

"To Admiral Bouverie, &c., &c., &c."

No. 129. *From Admiral Sir R. Stopford, Commander-in-Chief.*

"Princess Charlotte, Malta, 16th February, 1838.

"My dear Sir William,

"I have now four of your constructed ships upon this station. The Vanguard I have seen the most of at sea, and *she*

does her work to admiration, as far as I have had the opportunity of witnessing; but I should not like her as my flag-ship, as she is so stinted in her cabins, and, moreover, deprived of her stern gallery, that indispensable article of health to an Admiral, who may be compelled to write five or six hours in a hot cabin. The weight cannot be an objection, judging from that small thing of 4 feet which I have in the Princess Charlotte*, which not only affords much salutary comfort, but is also of great utility to Admirals for the purpose of viewing their squadron. Were I an old Captain, I should feel cruelly disappointed at being deprived of one of those little incidents of comfort which enable us to bear the many disagreements one meets with in life. I have not had an opportunity of making any comparative observations between Carysfort and Dido; but I have recalled the former from Constantinople, for the purpose of having a trial of sailing. The Wolverene is a fine brig, but does not like a head sea.

"*All your steam packets are fine vessels,* and, in the opinion of their commanders, would be improved by an increase of power of motion.

"The Princess Charlotte sails well, and is particularly handy in working; she would, however, be improved by a small application of your principle in the article of breadth.

"I have not seen the Harlequin yet, as she has been employed upon the coast of Spain; but considering her good qualities to be thrown away upon that station, I have ordered her to join me here.

"The bad weather which you have had in England, in the shape of frost and snow, has been much felt here in rain and storms of wind. I am told that this winter has been very unusually tempestuous and rainy for Malta.

"Believe me, &c., &c., &c.,

"ROBERT STOPFORD."

[Sir R. Stopford died 1847.]

"Sir W. Symonds."

No. 130. *From Captain S. Jackson, R.N.*

"Royal Hotel, Hobbs Point, Pembroke, 3rd June, 1838.

"DEAR SIR WILLIAM,

"Pray accept my best thanks for your kind letter of congratulation on my appointment to this Yard, which I duly

* Princess Charlotte, 104, built 1825, on the lines of the Victory (built 1765 by Sir T. Slade).

received three or four days ago. I have been up to my eyes in business since that time, or I should have replied to it sooner.

"It is now my turn to congratulate you, which, believe me, I do very sincerely, upon your being restored (after that dreadful accident) to that state which will, I trust, enable you to render further service to your country in the profession which you have recently taken up, and in which you have become not only conspicuous, but distinguished. I hope and trust you do not for one moment suppose, that from the circumstance of my being in the Bellerophon I was adverse to your system of shipbuilding. I need not tell you that we are all proud of our own ships, and try to make the most of them—even if they were not better, nor had more science in their construction, than washing-tubs;—and as to anything beating them! that is a question, as you know, from long experience, that cannot for one moment be entertained. Bellerophon fell off very much in her sailing qualities latterly, which I attribute, in some degree, to the foulness of her bottom after leaving Tunis.

"Vanguard maintained hers to the last of my leaving Malta; but she always had the advantage after being properly trimmed. I tried to beat her, as a matter of course, and so would you had you been in my place; yet I always did *justice to you*, in her construction, and in giving her that power under canvas which she so eminently possessed over all other ships. I have much to say upon this matter, beyond the limits of a letter; let it suffice for the present to add that, if there had not been a single point of perfection in the Vanguard, beyond that of increased beam to give stability under canvas, as well as the power of fighting her guns under difficult circumstances, this of itself was quite sufficient, in my mind, to carry your name above all others in the construction of ships of war.

"I am, my dear Sir,

"Very faithfully yours,

"SAMUEL JACKSON."

"Sir W. Symonds." [Rear-Admiral S. Jackson died 1845.]

No. 131. *From Commander B. W. Walker, R.N.*

"Vanguard, off Tunis, August 1st, 1838.

"MY DEAR SIR,

"You will, I fear, be rather surprised to hear that I have written to be superseded from the Vanguard; but I trust I shall not be found wanting, if at any time my humble exertions can in any way assist so good a cause as that of convincing

the Naval world of the decided superiority of your ships over all others. I am happy to say that the Vanguard still retains hers, and continues to astonish every body. The Barham has not the slightest chance, and I am ready to stake a good deal that Vanguard will beat her at least a mile an hour, on any point.

"Pray believe me, &c.,

"B. W. WALKER."

"Sir W. Symonds."

No. 132. *From Rear-Admiral Bouverie, Rear-Admiral-Superintendent.*

"H.M. Dockyard, Portsmouth, 14th August, 1838.

"SIR,

"In compliance with the desire of the Lords Commissioners of the Admiralty, conveyed to me in your letter of the 4th instant, I have the honour to send, for their Lordships' information, the following report of my opinion of the sailing and other qualities of H.M.S. Vanguard, during the time I had the pleasure to command this noble ship, for a year ending the 22nd March, 1837. It is now nearly 18 months since I resigned my command, and not having in my possession the necessary official documents to refer to, there are many particulars connected with the Vanguard's superiority over other ships with which she sailed, which I do not remember so distinctly as to justify my mentioning them in this report, being anxious to confine myself to facts that will bear the strictest investigation.

"First: her stability under a press of sail. — During the period above mentioned she was tried in every description of weather, and under almost every circumstance incidental to cruising in the summer and autumn months; and her comparative stability, with that of other ships in company with her, was always remarkable, often admitting of her lower-deck ports being kept up, and her guns being fired horizontally, when the ports of her consorts were obliged to be barred in. On several occasions of the squadron carrying sail, and the signal being made by Vice-Admiral the Hon. Sir Charles Paget, our Commander-in-Chief, to make known the inclination of each ship, the Vanguard heeled only from 6 to 8 degrees, rarely exceeding the latter number; while other ships have indicated their inclination to be *twice* as much. This is a fact of the highest importance, to which I take the liberty to invite their Lordships' particular attention.

"In March, 1836, she had on board 140 tons of iron ballast, but by November, in the same year, the quantity was reduced

to 70 tons, which we found to be quite as much as was necessary.

"Second: how she behaves in a heavy sea.—Nobly; easy in all her movements, and without straining a rope-yarn. In a heavy gale of several days' continuance, in the beginning of October, 1836, her conduct was the admiration of all on board. There was no working of her masts, nor straining of her rigging, nor symptom of weakness in her keel; no discoloration of her whitewash in her wings, from leaks. For this gale the fore and mizen-topsails were furled; but when we gave her a little more after-sail than she had previously had, the manner in which she kept to windward of the Bellerophon and Pembroke (the ships then in company) proved her remarkable superiority.

"Third: her capacity for stowing water and provisions, and in berthing her men.—She stows upwards of 400 tons of water, and could carry, with perfect ease, five months' bread and six months provisions of all other species, for her complement of 620 men, and an abundant supply of stores for her own use. She could take even more than these quantities; but I confine myself to facts which would not affect the qualities necessary for a man-of-war to possess. Her crew are berthed with the greatest convenience and comfort. I must here mention that I am perfectly satisfied she would carry well a tier of 68-pounders on her lower deck.

"Fourth: how she works under every variety of weather.—She stays and wears beautifully; and the following instances prove her superiority under this head. At different times, when working into Plymouth Sound, it was difficult to keep her station astern the Bellerophon; and in beating into the Cove of Cork, on the 20th September, 1836, she spared that ship royals and courses, and actually worked through the Narrows under topsail, topgallant-sails, jib, and spanker. She also beat into Malta harbour, in January, 1837, with the wind dead out, and anchored abreast of the outer Barracca.

"I shall now submit a few additional remarks on the qualities of the Vanguard, as compared with other ships, and I am satisfied I shall be borne out, in all I assert, by those officers who have witnessed her evolutions, and who have had opportunities of judging of her powers and superiority. The manner in which she went to windward of the squadron, in the various trials of sailing in 1836, was very remarkable; but more particularly so on the 18th of August, in a trial by the wind, when the Bellerophon's position, from being half a mile ahead, was changed to but a little before the lee beam, the distance between the two ships being increased to seven miles; and on another trial, by the

wind, on the 29th of October, with a good deal of head sea, under double-reefed topsails and topgallant-sails, the ships in company being the Inconstant, Pique, and Pantaloon (the Vice-Admiral's flag being in the Inconstant), the Pantaloon kept most to windward, the Vanguard next, and after a trial of five hours, the Inconstant and Pique tacked, when the former passed 2 miles and 260 yards to leeward, and the latter ship a little less than that distance. On this latter occasion the ships were in close order at starting; but the course of the two frigates appearing to me to be considerably off the wind, I asked, by signal, whether the trial of sailing was to be by the wind, and the answer was, Yes: the signal previously made having been to close round the Admiral, and to try rate of sailing. I mention this fact merely to show the decided superiority of the Vanguard in lying close to the wind, a quality of paramount importance, for reasons which their Lordships are conversant with, and which it is unnecessary for me to enlarge upon.

"I have the honour to be, Sir,

"Your very humble servant,

"D. P. BOUVERIE."

"To the Secretary of the Admiralty."

No. 133. *From Commodore Sir J. Louis, Bart., Superintendent at Malta.*

"Malta, 12th April, 1839.

"MY DEAR SYMONDS,

"My son, who goes home in the Firefly to try and get employed, and would be delighted to command one of your craft, will deliver this to you, and will give you any information you may require about Vanguard, &c.

"He will tell you how beautifully she came in the other day, with a scant wind, and was enabled to take her moorings in at the head of the harbour without letting go an anchor, when Rodney, Asia, and Castor, were obliged to bring up off Bighi Bay, and were nearly the whole of the day warping to their berths.

"These ships went out with the Hastings as far as Maritimo, and were absent about a week, during which time they experienced some very bad weather. On their return, it was found necessary to caulk the waterways and *oak* plank of the Vanguard's main and lower decks; the plank had shrunk so much. As this circumstance gave rise to reports that the Vanguard had worked so much in her late short cruise, that she had worked all the oakum out of her decks, and that her fastenings

were loose; and as, I have no doubt, a great deal will be made of this, and reports to her disadvantage reach you, I desired Mr. Harvey, when he inspected the deck, to examine her very carefully. He states that there is not the slightest appearance of her having worked in any part of the ship, nor do the fastenings show the least signs of weakness. All the *fir* planking of the deck is quite good, and does not require any caulking; but the *oak* plank, which must have been put in green, has shrunk so much that it wanted caulking, and may require, when she goes home, either to be taken up or refayed, or to have *listing* pieces put in. If this had happened to any other ship, we should have heard nothing about it; but, as you well know, there are certain people so jealous of this fine ship, from her great superiority in working and sailing, that they are ready enough to catch at anything, and care not what lies they tell about her, and all your other ships.

"Yours very truly,
"J. LOUIS."

"Sir W. Symonds." [Now Admiral Sir J. Louis, Bart.]

No. 134. *From Captain Sir T. Fellowes, R.N.*

"Vanguard, Portsmouth Harbour, 29th March, 1840.

"SIR,

"I beg leave to state that I have called together the principal officers of H.M.S. Vanguard, and the accompanying statement has been the result of our opinions on the different questions asked in your order of the 25th instant.

"I have, &c.,
"THOMAS FELLOWES, Captain."

"Admiral Sir E. Codrington,
Commander-in-Chief, &c., &c., &c."

"*Armament.*—Is not so heavy as the ship is fully capable of bearing; and would carry with ease 68-pounder guns throughout on the lower deck, and longer guns on the main and upper decks.

"*Midship Magazine.*—Is advantageously placed; and would recommend the alterations suggested by the plan sent from the Mediterranean, with the addition of supplying powder from the fore part of the main magazine.

"*Store Rooms.*—As at present fitted, are roomy and convenient.

"*Ballast.*—Sufficient. No diminution, unless armament in-

creased; then to diminish according to the extra weight of guns, shot, and powder.

"*Masts, Yards, and Sails.*—As at present established, give great stability.

"*Whether uneasy at Sea.*—Very easy at sea, and works less than ships of her class.

"*Trim.*—Her best sailing trim is five inches by the stern, decreasing as she lightens, having five months' provisions and stores with her present ballast.

"*Draught of water then is*—

	feet.	in.
Abaft - - -	23	7
Forward - - -	23	2

"*Height of Lower Deck Ports*—

Bow - - -	8	11½
Midship - - -	7	6½
After - - -	8	1

"*Comparative Sailing.*—Great advantage, in all points of sailing, over every ship she has tried with.

"THOMAS FELLOWES, Captain.
"FREDERICK HUTTON, Commander.
[Now Captain F. Hutton, of 1844.]
"C. M. M. WRIGHT, Senior Lieutenant.
[The late Captain C. M. M. Wright.]
"W. G. B. ESTCOURT, Second Lieut.
[The late Commander W. G. B. Estcourt died in the Eclair, 1845.]
"WILLIAM MILLER, Master."

No. 135. *From Captain Sir Daniel Dunn.*
(Extract.)

"H.M.S. Vanguard, Marmaurice Bay, 12th December, 1840.

"Here we are, just arrived in this most splendid Bay, after a cruise of six weeks or two months off that most vile of all places, Alexandria. Our *energetic* Commodore (Charlie Napier) soon settled the business with the Viceroy of Egypt, gaining all we demanded,—restitution of the Turkish fleet and evacuation of Syria;—and the very *hour* the mission terminated, on came one of the most violent gales of wind I have *ever* witnessed. Indeed, I may say we had two gales, for we had three days' gale *along* the land, and three or four *dead on it.* But, thank God, we made our offing of 60 or 70 miles before the second gale began, after a lull of twelve hours. There is not one ship of the six

sail of the line that had not suffered more or less, and some of them heavily; particularly the Commodore's own ship, the Powerful*, and Captain Reynolds in the Ganges.† *Our* only loss, a main-topsail blown clean out of the bolt-rope, in consequence of the weather-sheet going,—so that Vanguard has really weathered the storm admirably well, although rolling *deep*, yet so *easy* that not one single rope-yarn has been strained of our rigging; nor in the *four* gales I have had her in, in *three* months, from sailing from Cork, has she carried away one rope of her standing rigging, low or aloft; which friend Symonds will rejoice to learn.—Poor Sir Robert Stopford had a narrow escape in Beyrout Bay, but happily rode it out. Bellerophon, at anchor with him, parted, and escaped being wrecked by a miracle; for, when all but on shore, the wind changed 3 points, which enabled her to clear the point of the Bay. She has thrown over many of her guns, boats &c., as have several of the other ships,—in short it has been a fearful visitation all along the coast, and we still fear for many of our small cruisers. Pique cut away all her masts, and rode it out in Acre Bay; but the Zebra, 18-gun brig, is totally lost; happily, only three of the crew were drowned.

"The fleet are nearly all here, and 'tis said, here we remain till matters are settled; for *we* now find the Commodore's treaty was *un*authorised, and the wiseacres in Downing Street are disposed to commence *hair-splitting* with Mahomed Ali, as they 'll find to their *cost*.

"D. DUNN."
[Now Admiral Sir D. Dunn.]

No. 136. *From the same.*

"H.M.S. Vanguard, Marmaurice Bay, 13th Dec. 1840.

"Here we are, My dear Symonds, safely anchored in this most splendid Bay, after a series of as really bad weather as any old tar would wish to have any dealings with. I say *series*, for in fact we have had two gales, one of three days, and then a calm of some eighteen or twenty hours, when it went at it again, with a fresh hand at the bellows, for nearly four days, leaving this said Alexandrian squadron, of six sail of as fine ships as ever swam, tolerably *un*rigged, and a catalogue of *defects* as long as my arm. Thank God, Vanguard is an exception, being only minus a main-topsail, clear out of the bolt-rope, from the *weather*

* Powerful, 84; built 1826, as the French Canopus.
† Ganges, 84; built 1821, after the same model.

sheet having sold it, leaving about as much canvas under the close-reef as would make a pudding-bag for a Johnnie's mess on the lower deck. And I am proud to say, my friend, that this is our sole and exclusive loss, save a main storm-staysail, that shared the same fate; but as to rope-yarns, not one even stranded, *low* or *aloft*, of standing rigging. Not so *running-ropes*, I am sorry to say; owing in a great measure to the *ability* of our watch-keep officers, who seem to *pride* themselves on clapping as many hands on a flying-jib down-haul, as on a main-tack, and even worse than that; they make it their *study* to run the ships foul of each other by problems in Euclid, or some other such authority! May God, in his mercy, keep me clear of all these sciential chaps, who seem to me totally devoid of all the requisites to keep our station amongst maritime nations; and if Old England pins her faith to *them*, to retain her Naval ascendancy, she will rest on a broken reed.

"Ere this can reach you, you will have heard of all the losses, crosses, and disappointments of the storm; but I must tell you that poor old Ned Boxer was compelled to cut away Pique's masts, to save her hull, in Acre Roads, where Zebra * has left her ribs and trucks.

"I have *now* had a full share of *four gales* in *three months* from quitting Cork, which I hope will stand Vanguard in need; for *indeed* she needed it much, to make her a sea-going craft, as *Malta Harbour* seemed to me to engross all their thoughts; and, God knows, she had far too much of that in her last commission, if I may judge from what I've experienced ever since we quitted Old England. Puff, polish, putty, paint, have been *far, far* too much the order of the day; but, thank God, four gales in three months have effected wonders towards a reformation, at least to *my taste.*

"As ever, I am faithfully yours,
"D. DUNN."

"Sir W. Symonds."

No. 137. *From Commander F. Hutton, R.N.*

"H.M.S. Vanguard, Malta, November 27th, 1840.

"MY DEAR SIR,

"I hope you received the diagram sent of the trials of sailing between Vanguard and Indus. There having been so

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* See p. 534—538. The Zebra, 18, was under Commander J. J. Stopford, the Admiral's son.

many ridiculous stories appertaining to the sailing of the Vanguard, I consider it my duty to mention, I never knew her beaten; on the contrary, with any ship she has ever tried, she has shown a most decided and convincing superiority, even to the most prejudiced minds. I give this opinion, having belonged to her three years as Commander, and been generally in company with her for two years previous to my joining. The cause of our going out with the Indus* was in consequence of a supposed advantage in sailing on her part; it having been stated she went 10·6 on a bow line, all lifting, &c.

"Sir John Ommanney, ever averse to your system, and attempting, in every way his humble abilities would allow, to decry it, thought it would be a good opportunity to beat the Vanguard, — one of his favourite themes and wishes; the result, you have seen by the diagram I sent to England by Lieutenant Bouverie. It was a pity we had not more wind to have beaten her more satisfactorily; although the Indus is a fine ship, sails well, and has great stability. I believe that bigoted feeling which did exist, to be gradually wearing away, and from the general performances of the Vanguard, think that there are few in the Mediterranean not thoroughly convinced of her decided superiority on every point.

The Magicienne, when I belonged to her, was the fastest ship I ever knew, although not the most weatherly; we spared her all studding-sails the other day, going before the wind, and beat her. Three times has the Vanguard sailed out of Malta Harbour, when all the other ships, generally from five to six sail of the line, towed out by steamers; and in coming into the same harbour, when the wind has been scant, she fetched up to her moorings at its head, when other ships have been obliged to anchor in Bighi Bay, or the fair way. I mention these facts, although I am perfectly convinced you have an entire knowledge of the advantages she possesses; and although I cannot put my eye on the records of office, I am sure, too, she has been less expense than any other line-of-battle ship; *no spar even sprung* or carried away, I believe, since the first trials in the Channel. We have got the extra sheet of copper on at last. Sir John Ommanney opposed it, and said, in his usual blunt manner, 'he would not have it put on;' consequently it was done on his departure, and has much improved her appearance. We are still at a loss to know where Indus, Rodney, Revenge, and Calcutta†, have gone. All went to the

* Indus, 78; built 1839, enlarged from the Danish Christian VII.
† Calcutta, 84; built 1831, by Seppings.

westward, about a fortnight since, with six months' provisions; Indus, I believe, out of the Mediterranean. We have here Howe, Impregnable, Ganges, Monarch, and Cambridge*, and anticipate wintering at Malta, unless anything in the political world should turn up to require our services. Thunderer and Benbow† are to the eastward, the former daily expected; Vernon at Corfu. We are looking out with anxiety for our Commander-in-Chief; for these constant changes and interregnums are any thing but desirable.

"Believe me, &c.,

"Sir W. Symonds." "FREDERICK HUTTON."

No. 138. *From Captain Sir David Dunn, R.N.*

[Extract.]

"27th January, 1842.

"MY DEAR SIR GEORGE,

"You express a wish to have an account of Vanguard's qualities, now that I have commanded her for nearly two years. It is not for me, as her Captain, to extol her abilities, but I can safely aver, that up to this hour she has never been beaten by any ship or vessel, on any point of sailing, since I have commanded her. And as to her qualities as a sea boat, you shall judge for yourself, when I tell you that I have tested her in *three* severe gales of wind, one a hurricane off Alexandria; and here she is, without having carried away a spar, or sprung one, or even stranded a rope-yarn of standing rigging, low or aloft. So that she well deserves praise for so safely and so proudly doing her work; the more especially when some of the finest ships we have suffered severely, such as Powerful, Ganges, and others. I ought not to omit to state, that in all these gales I was *compelled* to have her out of trim (sadly so off Alexandria), from causes over which I had no control, yet such was her behaviour; and I hope to keep her without a caulking now for more than a couple of years, perhaps *three*, unless we have a transatlantic trip.

"D. DUNN."

"To Rear-Admiral Sir George Seymour."‡

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* Howe, 120; built 1815, by Surveyors of Navy. Impregnable, 104; built 1810, by Sir W. Rule. Monarch, 84; built 1832, as the French Canopus. Cambridge, 78; built 1815, as Christian VII.

† Benbow, 72; built 1812, by Surveyors of Navy.

‡ A Lord of the Admiralty, 1841-4. Now Admiral Sir G. Seymour, Commander-in-Chief, at Portsmouth.

No. 139. *From the same.*

"H.M.S. Vanguard, Malta, 4th June, 1842.

"SIR,

"In reference to your general Memo. No. 35, I have to state that I am in every way pleased with the qualites of Her Majesty's ship under my command; sailing well, working very quick, remarkably easy, of a very weatherly disposition, and great stability; and in comparison with other ships, has beaten every vessel of war she has yet fallen in with.

"I have to state that H.M.S. Queen, during the late cruise, by my observation, appeared, so far as I was able to judge, to possess every quality which I have attributed to the ship I have the honour to command.

"I have the honour to be, &c.,

"D. DUNN, Captain."

"Vice-Admiral Sir E. Owen, K.C.B., G.C.H.,
Commander-in-Chief, &c., &c., &c."

No. 140. *From Commander F. Hutton, R.N.*

"H.M.S. Vanguard, Malta, 20th June, 1842.

"MY DEAR SIR,

"I know you are at all times pleased to hear of anything appertaining to the Vanguard, and in this instance I feel great pleasure, not only in stating her continued superiority over all other ships, but in mentioning the very excellent qualities of another of the family, the Queen. She is, indeed, equal in every respect to the favourite Vanguard, taking the relative difference into consideration between a vessel of two and three decks. I transcribe the answer given by Vanguard to Sir Edward Owen's order for the Captains to report on their different ships, and also their opinion of the Queen. Although we had no regular trials, which we much regret, as there is still a loophole for bigoted cavillers to escape from, still the most prejudiced could not avoid seeing the decided advantage of your ships.

"We were fifteen days out, with a variety of winds, from close-reefed main-topsail to calm. In moderate breezes, the Queen sparing courses to Howe and Impregnable; a course to Cambridge and Calcutta; not so much to Thunderer, who was decidedly the best after those of your construction. The heel of the Queen, when occasionally under the same sail, as apparent to the eye (signal never made), was about one-half

that of the three deckers and 84; of the Cambridge about one-third. I think 30 tons more ballast out of her would be an advantge. Queen and Vanguard stayed when others frequently missed. Thunderer and Calcutta slack in that particular; indeed all those 84's are.

"The Admiral is delighted with the sailing, &c., of Vanguard, which he frequently expresses. On going round, under close-reefed topsails and storm staysails, he said, 'If she goes round this time, I shall be satisfied with her.' I trust the Vanguard may ever retain the name she still holds.

"The Master of the fleet thinks his old ship rather to have improved than otherwise. Indeed, I have always considered this the finest two-decked ship I ever saw or heard of, in every particular; and from what I have seen of the Queen, I have decidedly the same opinion of her as a three-decked ship.

"I hope you do not consider these opinions too positive from one of my rank, but 28 years' constant employment makes one think he ought to be enabled to form a judgment.

"In this cruise, although without set trials, in which I am convinced your ships would have shown still more, I must congratulate you on the fact, that almost all the old officers and all the young ones, whatever might have been their previous prejudices to the innovations so boldly and successfully worked out by yourself, have said that 'Seeing is believing.' For the good of the service I belong to, that such opinions may continue, is the sincere wish of,

"Yours very truly,
"FREDERICK HUTTON."

"Captain Sir William Symonds, R.N.,
&c., &c., &c."

No. 141. *From Captain Sir D. Dunn, R.N.*

"H.M.S. Vanguard, Malta, 27th June, 1842.

"MY DEAR SYMONDS,

". . . Let me pass on, my dear fellow, to a subject more cheering, and one which I well know you are deeply interested in, to wit, *your* darling, ay and *my* darling, Vanguard, who in the late humbugging cruise thrashed the *best* and the *sauciest* of these braggarts, on all and every point we tried; and blow high or blow low, made no manner of difference; head sea or no sea!

"Having said this much for the darling *I* command, I am in justice bound to say, that the *largest* of your family, Queen, is

worthy of you, for assuredly she is a ship of astonishing power and stability; in truth, she appears to me to possess every good quality, as I have reported *officially* to Sir E. Owen, who called on *all* of us to give our opinion of her, from what we witnessed during the cruises.

"Yours sincerely,

"Sir W. Symonds." "D. DUNN."

No. 142. *From Commander F. Hutton, R.N.*

"H.M.S. Vanguard, Plymouth Sound, August 4th, 1843.

"MY DEAR SIR,

"It is with the greatest regret of all on board that we are to be paid off at this port, as we were in hopes of being seen somewhere, to have had the ship duly appreciated; all being so proud of belonging to such a ship, and taking equal pride in her wonderful superiority over all others, which even the most prejudiced have been obliged to acknowledge. Her external and internal appearance, and the zeal and activity of all belonging to her are as much attributable to what they have had to work upon, as to any other cause; and I am truly sorry that yourself, and others whom we might have had on board, had we gone to Portsmouth, will not perceive that our time has not been idly employed. Having been Commander of the Vanguard four years and eight months, I can assure you that no ship has ever, during that period, (and I can as readily vouch for the previous time, having been so much in company with her,) beaten, or come near her, in any point of sailing or manœuvring; and to show her easy qualities, no spar has been carried away since I have belonged to her, except one flying jib-boom, from the guy going, and a young officer of the watch not taking the sail in in due time; one fore-royal yard, from the brace being kept fast in tacking; and one fore-topsail yard sprung, (which we now have as good as ever,) from too great a run with the topsail halyards, and the officer of the forecastle not saying, Belay! in time. I shall be anxious to know her expenses for repairs. I never could obtain any facts at Malta on the subject; but am fully convinced they have been considerably less than any of her competitors on that station.

"I am sure this ship's general appearance, capacity, and man-of-war-like bearing in every particular, have tended greatly, in the numerous foreign ports we have been at, to enhance the credit of the British Navy. Even the vain French have generally acknowledged her *somewhat* superior to any they them-

selves had; and I never witnessed greater astonishment than the American officers of the Delaware, lately in the Tagus, expressed about her. Her defects are trifling,—general caulking of decks, and occasional plank to be shifted, being the principal; otherwise, repairing gratings and a few other trifles, after being above three years in commission, are all that are required. The boats are the quickest, both sailing and pulling, I have ever known; all are fit for her again, requiring but small repairs.

"The lower rigging I should prefer to new, if she were to be recommissioned. Our lease in her has certainly expired, but it is almost a sin to pay her off. There are some ornamental things which I have been at some little expense about, but do most willingly and cheerfully leave all for the ship I have so much affection for; yet I hope you will cause them to be solely reserved for the Vanguard. Many thanks, my dear sir, for your good wishes for my promotion, expressed through Sir David Dunn; I make but little doubt that my claims will be attended to by Lord Haddington.

"Believe me, very truly yours,

"FREDERICK HUTTON."

"We hope to get up the harbour this evening, but doubt it; blowing strong from the westward. If it moderates, Hermes and Kite will tow us in this evening; if not, we hope on the morrow, and anticipate being paid off about the 15th."

"Sir W. Symonds."

No. 143. *From Captain Sir D. Dunn, R. N.*

"H.M.S. Vanguard, Hamoaze, 14th August, 1843.

"MY DEAR FRIEND SYMONDS,

"I am fully sensible how shabbily I have treated you, in not having sent you the scrape of a pen since the arrival of your own dear ship; but, indeed, a man who has to attend to the wants and wishes of 750 of a crew, on the eve of paying off, has not much time to *spare* on his hands; and I am sure no man living is more aware of this than yourself.

"Well, Symonds, I was, indeed, *heartily glad* to get your *very* kind letter; for it, if possible, made me more proud of this most splendid piece of mechanism which I have had the honour, the happiness, the pride, to command for the last three years and nearly a half. Symonds, you may build to the end of time, but you will never build a finer ship than Vanguard. In 48 hours from this date I shall have a plain coat on, and then for the

Emporium of fashion and folly! when I hope to take you and your dear good lady by the hand, and spin a yarn!

"The only defect I made of Vanguard, on my arrival, was caulking upper-deck waterways; in every other respect *perfect;* and our losses, during a three years' station in the Wood, were a flying jib-boom and a foreroyal-yard. As to *rope yarns,* the foremast shroud of starboard mizen-topmast rigging carried away, crossing the Bay of Biscay, is *all,* from the eye seizings to the lower dead eyes of *standing* rigging! So much for a *Peg-Top Ship!*

"God bless you, my dear Symonds, and with my kindest regards to the good Lady Symonds,

"I am, as ever,

"Yours beyond all doubt,

"D. DUNN."

"Sir W. Symonds."

No. 144. *From the Same.*

"Yarmouth, 17th March, 1844.

"MY DEAR FRIEND SYMONDS,

"I told you that —— would avail himself of any opportunity to traduce Vanguard and Vanguard's Captain; for he would never see anything cheering in either the one or the other; but I was not prepared to find him give utterance to such vile falsehoods. I quite agree with you that it requires *time* to admit of one's feelings subsiding into a quiescent state after such an attack, even from one who is so well known.

"I have been from home ten days or so, or I should have sent you my opinion of him before; but indeed the attack did not surprise me, as I know how *thoroughly* I had hurt his vanity in the non-cheering affair. I did give utterance to my feelings to a Lord of the Admiralty on the occasion; and I also sent him Hutton's account of the Vanguard's position during the sailing, adding, that at no time was she ever *one mile* out of her station, when all the others were *anywhere.* And *why* was I so anxious to preserve it? Because no signal was made to sanction our acting for ourselves; and when the gale was setting in, Vanguard's signal was made to keep her station, when a main staysail, hoisted for seven minutes, placed her so close as to have the red pendant shown! Under *such* a chief, was it at all likely I would *presume* to be out of my station, by allowing Vanguard to be 'where he expected to find her?'

"Sir George Seymour, you are aware, is an old shipmate of

mine. He wrote to me, some weeks since, to ask my opinion of *what* class of ships I would recommend to him for a flag-ship, giving me three classes to select from—Rodney, Formidable, and Vanguard; and also adding, that he feared either of the *former* class would prove better for rounding *Cape Horn* than the latter! This afforded me a fine opportunity of allowing him to judge for himself by the *comparative merits* of the three classes, when fairly tested together off Alexandria in a gale (acknowledged by all to be a severe one), and when the two former classes were proved to be very far inferior to the latter, instancing Rodney, Powerful, and Ganges; the former all but losing her lower masts, and asking permission to part company to save them; the two latter rendered unfit to keep the sea.

"Indeed, Powerful took more than a month to repair damages in Marmorice Bay; all which I fully told him, and concluded by saying, that in the three years and a half I had Vanguard, a flying jib-boom, foreroyal-yard, and an ensign staff, were my losses in spars! And as to rigging, not one rope-yarn carried away, save and except running rigging. Indeed, I candidly told him, that had I to go round the world in a two-decker, Vanguard or Vanguard's class should be the ship; and as my dear old craft had been running for eight years or so without any repair to speak of, I would recommend either Collingwood or Superb.

"Ever faithfully yours,

"D. DUNN."

"Sir W. Symonds."

N.B.—Sir G. Seymour chose the Collingwood for his flag.

No. 145. *From the Same.*

"Rocklands, near Chudleigh, Devon, 19th May, 1845.

"MY ALWAYS KIND FRIEND,

"It really gladdened our hearts to observe your well-known hand, a day or two since, on the *out*side of a letter; and still equally so to find, on its perusal, that both you and your dear kind invalid are weathering out the chilling blasts of *these times* so wonderfully well; one having set 'Boreas' at defiance, and the other having combated successfully a far more *implacable* and dangerous animal, bearing the name of 'Magog!' who is ever on the watch to *crush* any one *presuming* to have an opinion of his own.

"I do, my dear Symonds, heartily rejoice to find you can bear up so manfully against such an incessant fire of the *vilest* calumny ever brought to bear upon mortal man, and that, too,

by a set of one's own other brother officers, who really are devoid of common Christian feelings in their malignant desire to damage your reputation with the public as a Naval constructor. You have still *wolves* around you in the *garb* of the better animal; and I warn you of one who never was wont to show love to any of *your handywork, out* of England; so just play him as you and I were wont to do, when we kicked a shark on the 'lee-quarter!'

"I do not like to make it the subject-matter of a *letter* to my old middy in Bacchante (Master Rous); but *he* shall learn it from me in some way or other, that my dear old ship *had* every rope-yarn over her lower and topmast heads for the three years and a half I commanded her, that are *now* over the lower and topmast heads of her sister ship, the Superb,—and that, too, by the *especial* solicitation of her *present* Captain!

"So much, my dear friend, for all he noised about, as to the Pique's destructive motion precluding the power of rigging wearing more than *half* a foreign station; and such he and others verily believe to this hour; for I feel assured there are those now at Plymouth who would not believe their *own* eyes respecting Vanguard's rigging. . . . . .

"Ever your attached friend,

"D. DUNN."

"P.S. — Glad am I to find Walker is thoroughly sincere in the good cause; for I'm told he can *do* his work, *without* a *deputy!*"

No. 146. *Extract from Report of Captain G. W. Willes, R.N., 17th Oct.*, 1845. [Died in command of Vanguard, 1847.]

"Vanguard.—A noble man-of-war, carrying her lower-deck guns a good height out of the water; stows well, considering her magazine occupies the principal part of the main hold; is best calculated for heavy weight, which is required lower down.

"She stands particularly well up under her canvas, rolls much when under small sail in a sea, in what may be termed a half gale of wind. I consider her superior to, and faster than, any ship in the experimental squadron. She sailed better the last cruise than the first, in consequence of raking the main and mizen masts much aft, and borrowing weights from their proper places to counteract the loss of ballast from the lower part of the hold. I feel confident that if properly stowed and ballasted, in sailing and working she would be equal, if not superior, to any ship of the squadron. Although quick in her rolling motions, she does not strain either her standing rigging or hull."

H.M.B. HARLEQUIN, 12 *guns.*

Built 1836, at Pembroke. Tonnage, 433.

No. 147. *From Commander J. E. Erskine, R.N.*

"H.M. Brig Harlequin, Malta, 30th Jan. 1837.

"My dear Sir William,

"As you expressed a wish to hear occasionally how the Harlequin got on, I had written a few lines for the last packet on the subject; but being unexpectedly ordered to sea, I was unable to send them. I hope the present account of her will be satisfactory; having had an opportunity of seeing her under different circumstances of weather, &c., I think we can pretty well guess what she will be.

"We left St. Helen's on the 20th November, just before the heavy gales, which I see have done so much damage, came on. I find we were one of the few vessels that had not to put back; indeed, we had only just cleared the land, when a westerly gale began, and continued, with occasional lulls and shift, till the 29th, on which day and the 28th it blew very hard, with a heavy sea. During this time the behaviour of the brig was the admiration of everybody on board; lying-to, perfectly dry, and so easy, that with our new rigging fitted, in cold and wet weather she never strained a rope-yarn aloft, nor broke a *tea-cup below.* Of her weatherly qualities we may form an opinion, when I say, that on the night of the 28th, in the height of the gale, while as close to the wind as we could be, under reefed main-trysail, fore-staysail, and close-reefed maintopsail, to steady her, and a pretty heavy sea, she continued to go ahead by the log 3 knots 6 fathoms, and made it good with about 2 points lee-way in the reckoning. The only regret I felt was, that so many good qualities should be bestowed on sixteen 32-pound carronades; and I am perfectly convinced that she could carry the 25-cwt. guns with ease. Our only damage in the gale was a plank of hammock-netting stove in, and *Harlequin's sword-arm* snapped off by the bobstays.

"We soon had an opportunity of trying her with our neighbours, as, while lying at Malaga, Keppel came off there in the Childers.* I had heard at Gibraltar that she was considered

* Childers, 12, built 1827, by Sir. W. Rule.

by far the fastest sloop now in the Mediterranean; and the general impression seemed to be, that we should have no chance with her. He not anchoring, it was about two hours after he bore up, with a light land wind under all sail, that I got under weigh; and on going to bed at 2 o'clock, I set him about 6 miles ahead. At 7, when I came on deck, we were within gunshot, and continued alongside of him, sparing lower studding-sails and other light sails, expecting an easterly wind, to have a trial to windward. Accordingly, in the afternoon we were taken aback, and at 4, when the breeze had freshened up, he tacked so close under my bows, that I spoke him, and tacked on his weather-quarter. We were under all plain sail, and going from 6 to 8 knots; and at 5 o'clock (in one hour) we had brought him aft two points, and weathered on him *one mile and a half.*

"At 8 o'clock he was on our lee-quarter; his estimated distance 5 miles. Had the breeze continued, we should have seen no more of him; as it was, he was nearly courses down to leeward in the morning. To prove that there was no mistake, Keppel telegraphed before dark, 'Am perfectly satisfied;' and I have since had both the first lieutenant and master on board for four days on a passage from Barcelona to Malta. They both declared that we beat her '*like a collier,*' and were perfectly astonished at the way we went to windward. Their stay on board increased their admiration of the brig, and they told me, from what they had seen of all the squadron, there was nothing in the Mediterranean that we need fear sailing with.

"A few days after parting company with Childers, whilst standing in to Tarragona, to communicate with the Orestes, we met her coming down before the wind with a strong breeze, and all sail set. We bore up with her, and made sail to single-reefed topsails, topgallant sails, and foresail, going about 10 knots. Finding we could not keep astern of her, though sparing her *two* sails, we hauled up the foresail, and, on the wind coming off shore, she took in royals, and hauled her main tack on board, and kept a topmast studding-sail on her. We then headed her so fast, that we took in topgallant sails, and we continued for an hour or two, till the wind fell light, beating her under topsails and jib; no boom mainsail. They appeared a good deal annoyed at Barcelona; said 'it was no credit to beat Orestes*; but if we fell in with Childers! ——'

"We left Malta for Tunis on the 5th January, the Favourite

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* Orestes, 14, built 1824, by Dr. Inman.

having sailed a few hours before. On leaving the harbour, she bore from us right ahead N.E. by N., half courses down, the wind north-westerly. This was at 1 o'clock; and at 3, having somewhat increased her distance, she tacked; but finding, I suppose, that she could not weather us, she tacked again, and at 4 we lost sight of her, E. by N. Having been placed, this cruise, under Captain Bouverie's orders, I had great hopes we should have had a trial with Vanguard, but did not make it out. On our leaving Tunis, he weighed in company; but it fell calm, and he anchored again, leaving us to proceed on our passage, which we did, beating the Nautilus* eighteen hours out of sixty.

"I have found, during all these trials, that she must be more than 12 inches by the stern; and, when deep, I think not more then 8 or 10. Whenever she got more, I have been obliged to trim her, by sending a few shot forward, and have also generally carried a stream anchor up and down the *foremast.* I therefore intend, as soon as I get out of quarantine, to take out all the ballast in the spirit-room and main hatchway, amounting to about 4½ tons, leaving about 16 stowed between fore and main hatchways; and then I think she will be about right; and I shall be disappointed if anything afloat touches her on a wind. From her not feeling the weight forward, I *really* think that a light *forecastle* would not affect her sailing at all, and would certainly be a great comfort and convenience. Larger guns she might carry with ease. I must now close this, and, with best wishes, believe me to be,

"My dear Sir, yours very faithfully,

"J. E. ERSKINE."

[Now Capt. J. E. Erskine, of 1838.]

"Sir W. Symonds."

No. 148. *From Captain W. Shirreff, R.N.*

"Gibraltar, May 14th, 1837.

"MY DEAR SYMONDS,

"I should not have given you the trouble to decipher my scrawl, but Captain Erskine has no time to write to you about Harlequin, of which he speaks in the most unqualified terms, and requested me to tell you that he left Malaga to come here last week, in company with the U.S. frigate United States.

"At 5 A.M., the frigate was 1 point on her weather-bow, distant 6 miles; at noon she was 5 points on her quarter, about

* Nautilus, 6, built 1830, by Sir. H. Peake.

the same distance, the wind having remained steady during the whole day. The Americans say that she may well be proud of beating them, as the United States is the fastest ship ever built in America. Nevertheless, they say that they were out of trim owing to being too deep, and that they would sail the brig for 500*l.* Upon hearing this, Erskine went on board with me to make the bet; but nothing was said upon the subject. I should have told you that the Harlequin had 20 tons of water out from forward, and Erskine considered her, therefore, much out of trim. There was a fresh single-reefed topsail and topgallant breeze.—You will be surprised to hear that I have undertaken to lengthen the Nancy Dawson for Vernon Graham.* I think of adding 5 feet to her bow; but I will send you home the draught of her when finished, and hope you will approve.

"Will you tell me the *rule* for finding the line of floatation of any vessel? Edye gives no explanation of his method. Pray also tell me the rule for finding the length of cutters' (yachts) masts and spars. Believe me, my dear Symonds,

"Most truly yours,

"M. SHIRREFF."

"Sir W. Symonds."

[Rear-Admiral Shirreff died Rear-Admiral-Superintendent at Portsmouth, 1847.]

No. 149. *From* ———

"Barcelona, 10th April, 1838.

"MY DEAR SIR WILLIAM,

"I thought it was useless to write to you until I had seen the Harlequin tried against some other man-of-war; but having had two days' trial with the Castor, and they acknowledging themselves to be completely beaten, I may as well send you the particulars. We sailed from Tarragona together on Wednesday last, for the purpose of trying rate of sailing, and we had also in company a French 10-gun brig, who was completely beaten by both vessels. Harlequin sailed twice round her in about an hour, sparing her topgallant sails. At a quarter before 9 we made sail, when talking to Captain Collier, on Castor's weather-quarter; and on making the first tack, at noon, we were, by *his* computation, 4 miles off, dead to wind-

* See p. 61.

ward, and our calculation was the same. We were increasing our distance, certainly in the same proportion, until we kept away, and ran down within half a mile on his weather-quarter. About 2 o'clock, he made the signal to steer E., and set royals and studding-sails, which was also done by the Harlequin, who drew on Castor very much at first; but the wind very soon died away, and we can scarcely consider it a trial off the wind. During the forenoon, we did not exceed 6 knots; and I should suppose our average was from 5 to 5½. It was nearly calm all night, and we were under easy sail until about 10 o'clock next morning, when a breeze sprang up, and both ships made sail on the starboard tack, we being at that time a little before Castor's lee-beam, and about half a mile from her.

"By noon we had crossed under her lee-bow, and were upwards of 2 miles in the wind's eye, still on the same tack. Both ships again passed the French brig, who had been making the best of her way to Barcelona, and was hull down to windward when seen in the morning, about 7. During these two days' trial, the Harlequin generally weathered the Castor about 1 mile an hour, forereaching at least in proportion. Captain Collier says the Inconstant never beat him so much on a wind; and it seems to be the general opinion, on board the Castor, that the Inconstant would be beaten by Harlequin. The Castor had a trial with the Wolverene, which seems to have been a drawn battle, as some of the officers think they had the best of it, and others say they were equal. I should think the Harlequin would beat the Castor on all points, from 2 knots up to 11; except in light winds and a heavy swell, when of course a lofty ship ought to beat any brig.

"I was on board the Harlequin last month, when we met one of the heaviest gales I had ever seen in this country; and the Gulf of Lyons is well known for its northerly gales. The maintopsail was split to ribbons, and she was brought under stormstaysails for about twenty-eight hours; but no vessel could behave better. On our return, we had to force her up to Cape Creux, against a northerly gale; but she beat up most admirably, under treble-reefed topsails, with a heavy head sea. Mr. Emes, the Master of the Harlequin, is appointed to the Dido; and as he is a very smart, good officer, and much interested in every ship he belongs to, I hope he will persuade Captain Davies to change the stowage, for I am quite sure it will improve her. I believe neither Dido nor Wolverene has any ballast *before* the main hatchway; Harlequin none *abaft* it; and I think there can be no question which ship is best stowed. I was at sea in the Harlequin when light, and more than usual, by the stern; and,

notwithstanding the new *discovery* as to stowage, she certainly carried slack helm, worked slower than usual, and altogether seemed quite a different vessel. As a further proof of this (and although all heavy weights are removed as much as possible from abaft), I have seen the stowing of the two after-guns forward have an almost instant effect in springing her ahead; her best trim, when pretty deep, is 10 inches by the stern, and masts not much raked. Erskine has put on a light forecastle, which improves her appearance wonderfully, and adds not a little to the men's comfort, without at all impeding her sailing. It was very carefully put on; the whole only weighs 14cwt. 3qrs. 1lb., although quite sufficient for all purposes.

"I think she is well stowed and admirably sailed, and I should willingly back her against any square-rigged vessel in the service, as long as she can carry her topgallant sails on a wind; and even after that I much doubt if anything will weather her, or either interrupt her sufficiently to do so. I have never seen her under canvas in any weather which could prevent her fighting her guns; and when beating in a heavy head sea, under treble-reefed topsails, and for a short time close-reefed, she could have fought her guns with perfect ease the whole time. Captain Collier is delighted with her, and told me—'Although at first very much prejudiced against the Surveyor's ships, I am now convinced there is nothing like them.'

"Sir W. Symonds." "——."

No. 150. *From Commander John Moore, R.N.**

"Brook Farm, Cobham, Surrey, March 30, 1849.

"Dear Sir William Symonds,

"I cannot resist troubling you with an extract from a letter I have just received from the First Lieutenant of my old brig, the Harlequin, as, in these days of ultra-scientific shipbuilding, I think it may please you to hear of the performance of one of your much slandered brigs. They had sailed from Lisbon with Sir C. Napier's squadron for Gibraltar, and were sent to assist a dismasted vessel, blowing fresh with a good swell on. She proved to be a Spanish brig, about 200 tons, making a great deal of water, and nothing to jury-rig her. With some difficulty they took her in tow. He says, 'It came on to blow very hard after we had her in tow, which increased to a perfect gale from E.S.E. and very heavy sea, and lasted nearly three

* Nephew of Sir John Moore.

days; close-reefed main-topsail and storm-staysails. Notwithstanding, we kept our vessel in tow, the sea at times making a clean sweep over her. *Three days* after parting company with the squadron, we observed them all 15 *miles dead to leeward of us.* St. Vincent split her sails, Prince Regent sprung her main yard, Reynard lost her bulwarks and boat, and in fact was in a bad way. We did not carry away a rope-yarn. The old Admiral wondered how in the world we got there. We were ordered to take her into Cadiz, where we lodged her in safety, remained there six hours, and anchored in Gibraltar six and a half hours after the squadron; not bad work.' I can only say, all the time I had the pleasure of commanding her I thought her perfection.

"Believe me, dear Sir William Symonds,

"Yours very truly,

"JOHN MOORE."

[Now Capt. John Moore, of 1848.]

"Sir W. Symonds."

H.M.S. DIDO, 18 *guns.*

Built 1836, at Pembroke. Tonnage, 734. A Corvette.

No. 151. *From Capt. L. Davies, R.N.*

"H.M.S. Dido, Malta Harbour, March 30, 1837.

"MY DEAR SIR WILLIAM,

"I avail myself of the opportunity of Pembroke going to England of sending you a log of the proceedings of Dido since she left Spithead; by which you will read that she had a most delightful and rapid passage to Gibraltar; from thence storms and perils, great and imminent; but thanks to her construction, she has weathered them all, without any damage or loss, save some studding-sail booms and boom irons (*à propos,* very bad iron work, in Eastern yards), futtock plates, boom irons on lower yards and screw bolt of hoop on fore-mast nearly dished, with two topmast studding-sail booms. Captain Moresby, who came passenger to Gibraltar with me, is so delighted with the craft, that he swears by 'Dido;' but to be serious, we *rode out* in outer roads of Malaga a twister, quite as furious as the storm which dished Orestes and Tyne* in the

* Tyne, 22, built 1826, by Sir R. Seppings.

Mole at that port. After completing provisions at Gibraltar, we sailed to Malaga, to give provisions to Harlequin, she being in the Mole at that port, painting; we had therefore to anchor in the road, to send the provisions in our pinnace, which was accomplished, and the boats hoisted in by 5·30 P.M., the weather then very fine, and the glass rising, intending to weigh after the people had supped. But the sea got up so suddenly, that we must have left our anchor; and having a new crew, and night coming on, we did not like to break her adrift before daylight, as we could not weather the shoal on the Torre Molinos, which was breaking furiously. It is now found we were right; though there is no doubt that the craft would have done her part if the men could have been depended on; that alone funked me.

"You will observe, by the log, that the second anchor was let go, and plenty of chain given on the riding anchor, when it was decided to wait for morning; but when day came, the craft made such beautiful weather, by riding so easy, that in my cabin you would not have known that it blew at all; and what surprised me was, that the swell, which came in ready to devour us, she rose over, without wetting the bowsprit; but it broke abreast of the gangway, and some of it lopped in amidships; we therefore (as you will perceive by log), after making every preparation for riding out, or getting under sail, determined to hold on as long as the craft made good weather of it, which she did to the end of the gale. But I must confess that after the gale was over, and the ship running with a fine breeze aft, along the coast, I felt so subdued, that I have lost, I fear, a handful of nerve.

"Pembroke was taken in the same gale at Gibraltar, drove, and got on shore, and was nearly wrecked. She sails on Saturday for England, by which you will get this. Captain Moresby, who knows what is what, was not in the command, although he was on board Pembroke at the time, Sir Thomas Fellowes having refused to resign the command. I have only to add that during the last four hours of the gale, the Master and First Lieutenant wished me to slip and run for the Mole, and talked of lives, which induced me to make the telegraphic signal to the Jaseur, noted in the log, 'Do you think it safe to run for Mole with only one anchor?' Answer—'Destruction! Impossible;' which at once made the Master join with me in looking to the sea as our only safety in the event of an accident, that is, the chain breaking. I was informed by one of the lieutenants, who was on shore during the gale, that two coasting vessels went to boards on coming to the Mole from sea.

"So sudden did the swell rise, that when I left the Jaseur at

6 P.M. (having dined on board, being assured it was only a sea breeze, and that the wind would be off the land at night), I was nearly swamped getting over the bar (and two of the lieutenants could not cross a quarter of an hour after). I left the table before the cloth was removed, and I have been on my knees to return thanks that I got on board, or God only knows but I might have lived to have witnessed the destruction of my queen in Malaga Mole; for the thing was discussed, but I declared I would face death in any shape sooner than see the ship destroyed on that horrid Mole. After sailing from Malaga, we encountered nothing but easterly equinoctial gales, and off the high land, between Alicant and Cape St. Antonio, the wind is notorious for shifting 4 or 5 points at a time.*

"L. DAVIES."

[The late Captain Davies.]

"Sir W. Symonds."

No. 152. *Extract of a Letter from Admiral Sir William Parker.*

"H.M.S. Cornwallis, Manilla, Dec. 16, 1843.

"Keppel will, I believe, also receive some dollars for Calcutta, and then return to resume the duties as Senior Officer in the Straits of Malacca, for the suppression of the pirates, and for which both ship and captain are admirably calculated; for she sails very fast, is in excellent order, and our little friend is a most excellent and zealous officer. She has accompanied me here. Agincourt also came out with us for two days, and Dido spared both of us her main sail and topgallant sails (nearly), both in rough and smooth water, with and against a head sea, and weathered at the rate of about 1 or $1\frac{1}{2}$ mile an hour! The two liners† are certainly slow coaches, with little to choose between them; but I was glad to see the Corvette do so well, and I think it will please Symonds to hear it."

No. 153. *From Capt. the Hon. (now Rear-Admiral the Hon. Sir) H. Keppel.*

[For this Letter of 19th Feb., 1845, which, at p. 189, is referred hither, see p. 335.]

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* From Sir T. Hardy:—"I am quite delighted to hear such good accounts of the Dido. All will turn out right, in spite of all the opposition."

† Cornwallis, 72, built, 1813. Agincourt, 72, built 1817.

H.M.S. CARYSFORT. 26 *guns.*

Built, 1836, at Pembroke. Tonnage 925.

No. 154. *From Capt. H. B. Martin, R.N.*

"H.M.S. Carysfort, Spithead, 1st March, 1837.

"MY DEAR SIR,

"We had a stormy passage of 6 days from the Downs. I was determined to keep the sea if possible, and I am now glad that I did so, as it gave me the opportunity of seeing what the ship is in a gale of wind. Lying-to, she is the *easiest I ever was in.* With a main topsail, *double*-reefed courses, mizen try-sail, and fore-staysail, we made her go 7–6. There was a heavy sea, and she certainly did plunge a good deal; but few ships, I am sure, could have carried the sail, and none who could do so, could have plunged less. I am certain that this capacity for carrying sail, is the foundation of the complaints against the violent pitching of these ships.

"I am ever, my dear Sir,

"Your faithful and obliged,

"H. BYAM MARTIN."

[Now Rear-Admiral Sir H. B. Martin.]

"To Sir William Parker."

No. 155. *From Capt. W. Shirreff, R.N.*

"Gibraltar, March 10, 1837.

"MY DEAR SYMONDS,

"I cannot resist writing a few lines to you, to say how much I like Carysfort. We had nothing to try with, but judging by appearances, she sails very well on all points; but on a wind, quite extraordinary. Her *rolling* and *pitching* are easier than that of any other ship I was ever on board of, nor does she roll or pitch *more* than the generality of ships do. We were one night lying off and on Trafalgar, under close-reefed topsails, blowing hard, and I never felt a ship more perfectly comfortable, or more dry. My opinion is that of almost every one on board, who may be supposed to know anything about the matter; but, as there are so many stories afloat about new ships, I thought you would be glad to hear from me upon the subject. As Martin likes her very much, and has a capital set of officers

and a magnificent crew, I hope she will do *you* credit, to whom we all are under such great obligations.

"Always truly yours,

"W. SHIRREFF."

"Sir W. Symonds."

No. 156. *From Capt. H. B. Martin, R.N.*

"Carysfort, Barcelona, 23rd July, 1838.

"MY DEAR SIR,

"Our cruise with the squadron has terminated without any decisive result; but the trials, insufficient as they may be, have been in favour of your ship, and confirm the high opinion I have always held of Carysfort's sailing qualities.

"It is so long since I have written to you, that I am obliged to carry my history back to March; when calling at Smyrna, on my passage from Constantinople to Malta, I found the Sapphire.* She got under weigh to sail against us, under the very modest persuasion that she was, at least, our match, if not more.

"In a light wind, quarterly, we ran from her so much, that we had to heave-to, nearly a forenoon, for her to come up and tell her story of foul bottom, out of trim, and all the other usual apologies for being, as you say, at Newmarket, 'nowhere.' On that day there was no sea breeze, so we had no further opportunity of trial with Sapphire.

"A long quarantine at Malta, the Rapid's disaster at Tunis, a second quarantine, and the caulking, prevented my sailing from Malta with the squadron; when I joined them at Naples, on 13th June. We had a tedious passage from Naples to Toulon, generally light winds. Vanguard, Carysfort, and Harlequin, could always keep their stations, sparing the other ships the mainsail, and frequently both the courses.

"One day, Vanguard, Harlequin, and this ship, chased to windward by signal. At starting, Vanguard was 1 mile on our lee quarter; Harlequin, quarter of a mile on our lee beam. In two hours and half, Vanguard tacked in our wake $1\frac{1}{4}$ mile astern; and Harlequin had got on our weather-quarter $1\frac{1}{2}$ cable's length. The breeze then freshening for a short time, Vanguard and Harlequin took their royals in. We reefed ours and set them, and, during the time, the breeze was fresh and steady. I think we decidedly weathered and forereached on both. However, it soon died away, and when the Admiral recalled us, Vanguard would have been alongside both Carys-

* Sapphire, 28, built 1827, by Superior Apprentices, at Portsmouth.

fort and Harlequin in a quarter of an hour. Neither Barham, nor any of the antique ships, sailed against us on that occasion, which I am sorry for.

"On our passage from Toulon to Mahon, we had a trial, off the wind, with the whole squadron — namely, Princess Charlotte, Rodney, Vanguard, Barham, and ourselves; for all the others (including Harlequin) were so far astern, that we took no account of them. We (Carysfort) claim the advantage over all. Barham admits that we dropped her 1½ points in the eight hours' sail. Vanguard denies our claim to having beaten *her* a quarter of a point, but admits that she could not head *us*. I assure you I had no expectation of being able to hold way with either, *off the wind*.

"On my passage from Mahon to Barcelona, I fell in with Castor *, 35 miles from this anchorage. Off the wind (that is, rather before the beam) we spared her the mainsail, foremast and topgallant studding-sails, going from 7 to 8 knots; and had to back the mizen topsail occasionally to keep abaft her beam. Collier would have made a smaller *exposé*, had he allowed me to make the best of my way, which he would not. As we approached the land, the wind headed us off shore, and we had to work up to the anchorage. We tacked a cable's length on her lee-beam, and in three-quarters of an hour passed, on opposite tacks, more than a mile to windward of her. I suppose it is unnecessary for me to say more of the Castor.

"I expect the Clio † every hour from Gibraltar, and, as I hear Richardson wrote home to say he had beaten the Dido, I am determined to give him an opportunity of adding the Carysfort to the list of his triumphs.

"Believe me, my dear Sir, very faithfully yours,

"H. B. MARTIN."

"Sir W. Symonds."

No. 157. *From Capt. J. Nias, R.N.*

(Extract).

"MY DEAR SIR WILLIAM,

"As Lambert received a letter yesterday from Capt. Martin, of Carysfort, he was kind enough to let me read it, and extract the following:—

"'On a wind, is our point; this class of ships has no length for running. However, I have seen quite enough of her powers

* Castor, 36, built 1834, by Seppings. † Clio, 16, commanded by Capt. W. Richardson.

to make me thank God that Symonds's ideas of shipbuilding have triumphed over the superstition of the ancients. I believe that, in spite of the bitterness of his falling foes, he can now well afford to stand or fall by public opinion.' This, I consider, is no small admission from one who, barely two years since, was violently opposed to you. He says he is to be relieved by Tyne, in order that he may try rate of sailing with Dido, who, report says, goes 14 knots off the wind, and 13, with royals on a wind. His letter is dated 10th of March. I shall, therefore, be glad to hear his account of their trial, in hopes that he will discover that his ship has length enough.

"J. NIAS."

"Sir W. Symonds." [Now Rear-Admiral J. Nias.]

No. 158. *From Captain Lord G. Paulet, R.N.*

"H.M.S. Carysfort, San Francisco, Coast of California,
"October 6th, 1843.

"MY DEAR SIR WILLIAM,

"I have long been intending to write to you to give you some account of the Carysfort, but have been waiting until I had some trial in rate of sailing with some other vessel on the station. I am sorry to say that, owing to the very few ships here, and their seldom or ever meeting on this extensive station, excepting for the purpose of relieving one another, no opportunity has offered of bringing us in contact with them. We had a slight trial with the Boussole, French frigate, which left Nooahevah (Marquesas Islands) three hours before us, keeping her wind; before sunset we were 6 or 7 miles dead to windward.

"On leaving England no vessel in the world could behave better than she did, beating down Channel against a strong westerly gale, and astonishing every one on board at the way she turned to windward, though against a nasty head sea. I find that when not pressed with sail at the extremes, she is as easy as any ship. We have made some excellent passages, particularly from Rio to the Falkland Islands, and from Valparaiso to the Marquesas Islands. In the former passage we got fairly 13 knots out of her, with the wind nearly aft; and once got 10 knots, on a wind, in smooth water. We were in beautiful trim when we left England, and until our arrival on this coast, viz., 14 inches by the stern; but the way we are crammed with provisions, and when clear of them, with freight, makes it useless to attempt to keep her in trim. We never leave the Admiral without eight months' provisions on board,

and considering that we only stow four months' (with the present complement of 240) under hatches, we have necessarily four months' above; and at present are drawing 16 feet 6 inches forward, and 18 feet aft.: 18 inches by the stern, having eight months' provisions on board. I assure you I feel quite proud in commanding such a vessel, and would infinitely sooner have her than the Belvidera *, or any of that class, though a rate higher. Visitors, and particularly foreigners, are astonished at her size when they come on board; she certainly is very deceptive.

"We had a dead beat likewise round the Horn, in the depth of winter, and she behaved nobly under close-reefed topsails, and sometimes reefed courses. When in trim she works like a cutter, and I have beat her up some narrow channels, particularly at the Falklands, which no vessel of our size has ever attempted before. I shall be able to tell you a good deal more about her on my arrival in England. She stands beautifully up under her canvas, which I don't spare at times. I am glad to hear so good an account of the Queen. I was on board of her previous to her leaving England.

"Believe me, yours, &c.

"GEO. PAULET."

[Now Rear-Admiral Lord G. Paulet].

"Sir W. Symonds."

"P.S.—Two of the Dublin's lieutenants who are now serving in the Carysfort, and another, who merely took a passage, all declare that we are drier on the main deck, in blowing weather, than the Dublin.†

"G. P."

No. 159. *From Captain T. Bennett, R.N.*

"Castle Street, Hereford, 20th December, 1845.

"MY DEAR SIR.

"I have observed in some of the newspapers, lately, a number of unmerited remarks relative to the Alarm, and her stowage of provisions, &c.; and in consequence I have compared the report of the sailing and other qualities of one of her sister ships, the Carysfort, with those of the Rainbow, of 28 guns, which ship I commanded, and of which, you may be assured, I gave the best character I conscientiously could.

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* Belvidera 38, built 1809, as the French Euryalus.

† Dublin 50, built 1812.

"Although you have access to these reports, you might not, perhaps, think it worth your trouble to compare them, though they show the most extraordinary difference between the two ships, and the uncalled-for and unfair statements made by the newspapers.

		Rainbow, 28.	Carysfort, 26.
Draught of water found to be best sailing trim - - -	fore	14·8 ft.	15·10 ft.
	aft	15·10 „	17·7 „
Necessary quantity of ballast - -		51 tons	30 tons.
Height of ports when fully stowed with stores, provisions - - -	fore	5·7 ft.	8·3 ft.
	mid.	5·3 „	6·7½ „
	aft	5·10 „	6·8½ „
Quantity of water she stows - -		63 tons	70 tons.
Ship's complement of officers and men -		175	240
No. of days' provisions - -		Stows 3 months' under hatches with difficulty.	Provisions 168 days. Bread 84 „ Spirits 140 „ Water 84 „ Coals 140 „
How armed - - -	main-deck	18 carronades 32-pds.	18 long guns 32-pds.
	„	2 long ditto 9-pds.	
	quarter-deck	6 carronades 18-pds.	6 ditto ditto
	forecastle	2 ditto, 32-pds.	2 ditto ditto
Weight of shot propelled at one broadside -		383 lbs.	416 lbs.
How many degrees does she heel with a fresh breeze under single-reefed topsails and topgallant sails - -		15°	4 to 6°
In strong breezes under double-reefed topsails and topgallant sails -		20°	5 to 6°
How does she stay - - -		Very slack in stays	Very well.
How does she wear - - - -		Very sluggishly.	Very well.
How does she steer - - -		Answers her helm slowly.	Very easy.
Little weatherly or leewardly compared with other ships - - -		By no means weatherly.	Very weatherly.
She has run per log under whole topsails and topgallant sails		9·0 knots.	9·6 knots.
under double-reefed topsails .. -		7·4 „	9·0 „
under double-reefed topsails and topgallant sails - -		5·4 „	8·0 „
under close-reefed topsails and courses -		5·0 „	5·0 „
in moderate weather unable to carry royals - - -		10·0 „	12·4 „
before the wind - - -		8·6 „	9·6 „
Comparative rate of sailing with other ships - - - -		Very inferior indeed.	

"I think the foregoing will be sufficient to prove the *very great* superiority of your six-and-twentys over the miserable and useless class of eight-and-twentys, in every point. I should add that when I first commanded the Rainbow, so badly did she answer her helm, that I approached any vessel (to speak her) with fear and trembling; and was obliged to add 6 inches to the after-part of her rudder, which certainly improved her steering. The fact is, she was so full abaft, and towed so much dead water after her, that her rudder had but little effect until it was increased by the addition which I made to it; but I need not point out to you what you are already so well acquainted with.

"In fact, the whole of the old eight-and-twenty class were useless as ships of war, except for convoys; and I heartily congratulate the service upon being quit of very nearly the whole of them, and that such excellent ships as your Vestal, and her sisters, have driven them out of the service altogether. You can have no conception of the tricks to which I was obliged to resort, when commanding the Rainbow, if I fell in with French or American ships of war, in order to avoid any trial of sailing, and I have even shifted a topmast as an excuse for doing so, not liking (as I knew I should be) to be laughed at by foreigners. I have always regretted that I was not held *worthy* to command a ship of your construction, because *I* thought I had ability to do as much justice to one as any of my brother officers. *I did* ask Lord Haddington for the Juno, or the Alarm, but his Lordship had reasons, I suppose, for refusing me, although I was recommended to him by Sir George Cockburn.

"Allow me to congratulate you, and also the service in general, upon the great improvement which you have decidedly made in our ships of war; for after the experience of nearly half a century, I may, perhaps, be permitted to give my opinion that *we never had so splendid a set of ships*, of all sizes, as those which have been constructed under your direction.

"In speaking of the Rainbow, I forgot to mention (in order to show her sailing qualities contrasted with a vessel of your construction) that, running down to Barbadoes, under all sail that could be packed upon her, before the wind, the Snake kept way with her, *with her topsails clued up*, for upwards of an hour.

"With best wishes for your continued good health, and *continued* valuable services to the Navy and the country,

"I remain, my dear Sir William,

"Your very obedient humble servant,

"THOS. BENNETT, Captain, R.N."

[Now Rear-Admiral T. Bennett.]

"Sir William Symonds, Knt., F.R.S., &c."

H.M.B. DOLPHIN, 3 *guns*.

Built 1836, at Sheerness. Tonnage 319. Brigantine rigged.

No. 160. *From Lieut.-Commander T. Roberts, R.N.*

"H.M. Brigantine Dolphin, Ascension, 14th Dec., 1836.

"SIR,

"Judging that the performance of the Dolphin will not be unacceptable, I take the liberty to acquaint you that, after five days sailing together with the Waterwitch *, that vessel was left without a leg to stand on; having been beat considerably at all times, and at all points, and the last day was run hull down in ten hours.

"Many thanks for your after-sails. The Waterwitch is the only vessel I have had an opportunity of trying with, and she is reported to be the fastest vessel on the station, having sailed with and beat all of them. I have come thus far, after going the round of the Bight, without a single accident, or straining a yarn; and without being greatly prejudiced in favour of the vessel I command, I must say I never was in anything so easy.

"To her qualities as a sea boat, Mr. Walker, the second Master-Attendant of Plymouth (who took a passage in her when turning down Channel against the heavy gales of October last), will, I think, readily bear testimony. Her masts are well secured with their present rake; she stands up well, and does not appear to feel the weight † of her guns; nor is there a single thing that I should wish to have altered, with the exception of her fore courses, which have not drop enough by a *whole reef*. They were made before the foremast was raked, which throws the tack up; and I am afraid I shall not get canvas allowed out here to increase them, without your interference. It is a great pity they were not observed before she left Sheerness. It is reported Bonetta‡ wants more sail.

"I have the honour to be, &c., &c.,

"THOS. ROBERTS, Lieut.-Commanding."

"To Sir W. Symonds, Surveyor of the Navy, &c., &c."

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* Waterwitch 8, built 1834, by White, of Cowes.

† One 32-pounder, 48 cwt., on a pivot; two 32-pounders, 40 cwt., on Fearnall's principle, before the main rigging.

‡ Bonetta was another brigantine by Sir William.

No. 161. *From Mr. John Sibbald, Mate, R.N.*

"H.M. Brigantine Dolphin, Ascension,
"Dec. 15th, 1836, Feb. 7th, 1837.

"SIR,

"I hope you will excuse my forwardness in addressing you, but I thought it would be for the good of the service to let you know the qualities of the Dolphin, which has turned out remarkably well.

"We fell in with the Waterwitch off Cape Coast, on the morning of Sunday, 27th November, and kept company until Wednesday, 30th, when we tried rate of sailing, with a fine breeze on the quarter, going 6 and 7 knots. At daylight the Waterwitch was about half a mile on the weather-quarter, and at sunset she was astern 5 or 7 miles. The following day, and Friday, in sight; and on Saturday, our Commander wishing to go to Ascension instead of calling at Cape Coast or Prince's Island, we ran back and communicated, gave her all the provisions she wanted, and proceeded. The whole of the Waterwitch's officers agree that we beat them at the rate of half a mile an hour, and are more surprised at being beaten than we are. Now we are the clipper of the Navy. So much for Sir W. Symonds! The side guns, owing to the money being abaft, we were always obliged to train forward, instead of aft, as fitted. The force pump has turned out a complete failure, having burst.

"The Dolphin is a very fine sea boat, sails like a witch, and is very easy. We arrived here yesterday, and sail this evening for the Cape. The Admiral, Sir P. Campbell, is expected here next week; so we have left all the despatches for him, and proceed to get clear of our money. Every person on the coast where we have been, agrees that we are the best armed and heaviest proper craft they have seen, for the African station. Our best sailing trim is 1 foot 11 inches by the stern. The Bonetta does not sail well, it is supposed, from being out of trim.

"Your very humble servant,

"To ——." "JOHN SIBBALD, Mate."

No. 162. *From Lieut.-Commander T. L. Roberts, R.N.*

"H.M. Brigantine Dolphin, in the Bight of Benin, 1st April, 1837.

"SIR,

"I have taken the liberty to send you the result of a trial of sailing, between this vessel, Columbine, and Waterwitch

together, on a wind. My former report related principally to sailing with Waterwitch, off the wind, in November last, when I was on my way to the Cape, showing the decided advantage I had over her on that point; this, I hope, will be equally satisfactory to windward.

"On my first arrival at Prince's Island, in February, a short trial took place with Columbine, without any advantage on either side. I was then swamped with provisions, having nine months' on board, and every breaker of water filled up. The present trial took place in the Bight of Benin, yesterday; all hands making sure of a victory, and I believe all pretty well satisfied with their stowage. Great preparations were made to beat the Dolphin. The race commenced shortly after 7 o'clock in the morning, and was continued till 7 bells in the forenoon, making 3 tacks to windward, Columbine and Waterwitch sailing nearly alike; the Dolphin stepping out most gallantly in the wind's eye, keeping them nearly in the same line of bearing, and going steadily from them for the whole time, till the distance was increased to 2 miles, when the recall was made; average rate of sailing, 5 knots. The time of the angles does not comprise the whole time of trial; the first was taken at 8 o'clock and the last at 15 minutes past 11; but the result will show what was gained in the interval. After this, I may be pardoned for offering my congratulations on your solid constructions, beating that shell of a thing, that skiff on the water, Waterwitch, at all points, with her anchors from her bows and four guns below.

"The Commander-in-Chief, Sir Patrick Campbell, inspected Dolphin at Prince's Island, and expressed his high approbation of her order and fitness, saying she was the only vessel he had seen so well adapted for the service intended.

"He has given me canvas for the drop of the foresail, which I have used. The headyards would spread another cloth in the fore topsail; I cannot get the sheets home by 2 feet, and every inch of canvas is of use in the light winds we have. Were I allowed to suggest, the only alteration I would make, in the fittings of similar vessels, would be in the bread-room. It is the only space of the lower deck filled to the deck, and the weight being in her extreme aft is a great drag to her. I would fleet the after-bulkhead of the cabin a beam further aft, making what is now called bread-room, the Captain's store-room, which would be hollow; put the magazine under the cabin, and take all the space of the now magazine and bread-lockers, under the gun-room for bread-room. I trust, Sir William, you will pardon me for this suggestion; I have no other wish than to see

your vessels go, and I humbly think this would be an improvement to their sailing. I think 1 foot 10 inches by the stern is about her trim, which is not far from the estimate, when press of sail is allowed for. Her guns answer admirably; she does not feel their weight; and she is a real beauty, not only in performance but in looks.

"I suppose you have heard that she can do other things besides sail, or rather by her sailing; having been so fortunate as to capture a large ship, a beautiful French-built corvette of 560 tons, and pierced for 18 guns, with 700 slaves on board.

"I have the honour to be, Sir,

"Your obedient humble servant,

"THOMAS L. ROBERTS."

"Sir William Symonds, Kt., &c. &c."

[*Enclosure.*]

NOTES taken on board Dolphin, on a trial of sailing in three boards to windward, between H.M. Brigs Columbine and Waterwitch, and Brigantine Dolphin, from 8 A.M. to 11·15 A.M., 31st March, 1837.

"7 A.M., tacked per signal, in company with Columbine and Waterwitch, and made all sail by the wind on larboard tack; 7·10, Columbine E.N.E., distant 3 cables; Waterwitch N. by W. ½ W. The further particulars of the trial, are shown in the following table. The times taken by chronometer; angles by sextant. Columbine's main-royal yard to water-line, estimated 125 ft.: Waterwitch's, 100 ft.; rate of sailing averaging 5 knots.

Times.		Bearings.	Angles.	Distance in feet.		Bearings.	Angles.	Distance in feet.
h. min.			° ′				° ′	
8 0	Columbine	E. by N.	1 40	4470	Waterwich	N. by E.	1 32	3737
9 0		E.¼N.	0 58			N.N.E.¾E	1 17	
9 30	Tacked	E.S.E.	0 47		Tacked	E.N.E.	1 15	
10 0		East.	0 45			N.E.¼N.	0 43	
11 15	Tacked	East.	0 34	13140	Tacked	N.N.E.	0 33	10420
Difference in distance			-	8670	Difference		-	6683

"Dolphin gained to windward, in three boards, from the time the first angle was taken to the time of bearing up to close, being 3 hours 15 minutes by chronometer: on Columbine 8670 ft. = 1¼ mile; on Waterwitch, 6683 ft. = 1 1/10 of a mile,

keeping both on nearly the same bearing that they started with.

"THOMAS L. ROBERTS,
"Lieutenant-Commanding."

"Sir W. Symonds."

H.M.ST. VOLCANO, 140 *h.p.*

Built 1836, at Portsmouth. Tonnage, 720.

No. 163. *From Lieut.-Commander M'Ilwaine, R.N.*

"H.M.St.V. Volcano, 18th June, 1837.

"MY DEAR SIR,

"I must write you a few lines, to say that Volcano continues to do her work in the best style. We took the quickest mail to Malta that ever went there, and brought the quickest to Falmouth, by three days.

"Wind moderate and smooth water, 9 knots is the average: 4 days and 19 hours to Cadiz; 4 days and 17 hours home.

"She is perfect, with the exception, that perhaps, in a head sea, a little more power might be better. Are we to be fitted with the chain-cable locker you spoke of, when I was last at Portsmouth?

"Ever faithfully yours,
"WILLIAM M'ILWAINE."

[Now Commander M'Ilwaine, of 1838, Superintendent Packet Service at Dover.]

"Sir W. Symonds."

H.M.B. LILY, 12 *guns.*

Built 1837, at Pembroke. Tonnage 432.

No. 164. *From Commander John Reeve, R.N.*

"H.M.S. Lily, Spithead, March 25th, 1838.

"MY DEAR SIR,

"I have just returned from a short trial cruise with Modeste*; and I beg to observe that we both made all sail, with

* Modeste, 18, built 1837, by Admiral Elliott.

the wind on the larboard quarter, steering S. by E. until 3 P.M. The Modeste, in a run of 6 hours, had headed us 3 miles. I then came to the wind on the larboard tack (being well over on the French coast), under courses, topsails, topgallant sails, and fore and aft mainsail. At starting I was on the Modeste's lee-quarter, I should think, at least a mile. It blew fresh with squalls, which obliged me to take in topgallant sails, and two reefs of the topsails. Modeste trying to outcarry us, in a short time away went her jib-boom and topgallant sheets. She was then obliged to bear up. Before carrying away her jib-boom, I had weathered and forereached upon her considerably; she was 3 or 4 miles astern when the accident took place.

"Modeste has no chance whatever, on a wind, with the Lily, nor do I think her much superior before it. Even in our present trim, we are 3 inches too much by the stern; and next trial, I hope to be able to say, that on all points we beat Modeste.

"I then ran to leeward, so as to place Modeste on my weather-beam; in one hour and five minutes she was on my lee-beam, about a quarter of a mile; and then, the last time I saw her, she was on our lee-quarter, nearly out of sight.

"I have the honour to be, my dear Sir, &c.,

"JOHN REEVE."

[Now Captain J. Reeve, of 1857.]

"Sir W. Symonds."

"P.S.—Our copper only 4 inches out of the water; a great pity; if higher it would preserve the plank. Neither paint nor varnish will adhere to wood *constantly wet.*"

No. 165. *From Commander Harry Eyres, R.N.*

[Enclosure to Admiral Sir P. C. H. Durham's Letter, of 25th March, 1838.]

"H.M. Sloop Modeste, Spithead, 25th March, 1838.

"SIR,

"In compliance with your orders I proceeded to sea on Friday morning, and beg to forward the following report of our proceedings:—

"At 10, we commenced sail free, with a fine breeze and smooth water, Lily a-beam; and at 12·30, having run ahead of Lily upwards of 2 miles, signal was made to close and try on a wind; when, shortly after, with all reefs out and topgallant-sails set, the jib-boom was carried away, in consequence of the new guys giving way, and the whiskers being placed at too high an angle to afford

the necessary support; which prevented any further trial that day. On Saturday, at daylight, observed Lily on the lee-bow; bore up for her; hauled my wind. At 9·40, Lily on lee-beam about 1½ miles, light winds and smooth water; tacked occasionally; Lily gaining on us each tack. After the last tack, at 11·30 the breeze freshened: water still smooth, Lily continued; forereached, and at 2 o'clock Lily bore up, being then about 2 miles on our lee-beam. Having asked, by signal, if she was going to proceed to the Needles, I, having pilot, was ordered to lead in; but the weather becoming very thick, signal was made to haul upon a wind on starboard tack. While reefing, observed Needles on lee-bow; endeavoured to telegraph the same to Lily, but fog prevented it. The topmast rigging wanted setting up, and the jib-boom, as at present secured, not being trustworthy, ran for the Needles, and anchored in Cowes Roads at 6·30 P.M. At daylight this morning, tripped the anchor, ran down, and came to at Spithead, 7 A.M.

"I further beg to state that my impression is, in smooth water and light winds and short tacks, Lily has a most decided advantage on a wind; but in a breeze with any sea, I consider the Modeste will have *as* decided an advantage.

"I have the honour to be, Sir,

"Your most obedient humble servant,

"H. EYRES, Commander."

[Now Captain H. Eyres, of 1841.]

"To Admiral Sir Philip C. H. Durham, &c., &c., &c."

H.M.ST. DASHER, 100 *h.p.*

Built 1837, at Chatham. Tonnage, 260.

No. 166. ***From Lieutenant J. A. Stephens, R.N.***

"Weymouth, 2nd June, 1838.

"SIR,

"I beg leave to report to you for the information of my Lords Commissioners of the Admiralty, that having, in obedience to their Lordships' order of the 23rd ultimo, caused the paddle-boards of the Dasher to be increased 3 inches, I this day took her out to try the result of the experiment.

"The Fearless* having landed her mail and passengers in the Bay, I directed her to accompany the Dasher, and stood out into the Channel, S. by E., one hour.

		ft.	in.
Dasher's speed of engine was - - -	$28\frac{1}{2}$;		
Ditto of ship - - - -	10 knots.		
Draught of water, forward - - - - -		7	$7\frac{1}{2}$
Ditto aft - - - - -		8	$2\frac{1}{2}$
Upper edge of paddle increased - - - -		0	$7\frac{1}{2}$

"Having stopped her engines at the expiration of the hour, it took the Fearless seven minutes to reach her. Returning to the anchorage gave the same results; so that I can report the Dasher to have beat the Fearless rather more than a mile per hour; and further, that an alteration made in the paddles of the former has increased her speed considerably. The rate of the engines is very good, and the experiment appears to have perfectly succeeded.

"The Revenue Steam Vessel Vulcan† joined in the race, and had a little (but very little) advantage over Dasher; and as the Vulcan is said to be the fastest-going steamer in England, the result is highly in favour of the new packet; especially as the smooth water and fine weather we experienced gave the Vulcan her best point of speed.

"I am, Sir, your very obedient servant,

"J. A. STEPHENS, Lieut."

"To C. Wood, Esq., &c., &c., &c."

H.M.B. SAPPHO, 12 *guns*.

Built 1837, at Plymouth. Tonnage, 428.

No. 167. *From Commander Thos. Fraser, R.N.*

"H.M.B. Sappho, Port Royal, 28th Nov., 1837.

"DEAR SIR,

"Being assured that you must feel an interest in the result of any trial of the sailing qualities of the Sappho, but more especially so, if the opponent were what the world might consider worthy to be pitted against her, I avail myself of this

* Fearless, built 1831, by Messrs. Fletcher and Fearnall.
† The present Vulcan (iron) was built 1849.

assurance to acquaint you that, at last, I have had the fortune to try her on all points of sailing, and in all weathers, from light airs to strong breezes, against the Champion *, and that she has acquitted herself to admiration.

"The Sappho and Champion, both under orders to proceed to the southward from Bermuda, weighed and made sail together from the anchorage at Spanish Point, on the 28th October, at 10 A.M.; the wind light, and though rather variable, nearly dead against us; the water smooth as a millpond. At 4·15 P.M., we came to in Murray's Anchorage, preceding the Champion one hour and a half; but I merely state this by way of beginning at the beginning; for although we had a decided advantage, the degree was not easily ascertained; occasionally bearing up, or luffing, as we were obliged to do, to avoid the coral reefs. Moreover, I must in honour confess, that we were favoured by a slant of wind. On the 30th we again got under weigh, and after the pilots had left at half-past 7 A.M., made sail; single-reefed topsails, topgallant sails, and courses; going from 6 to 6½ knots; wind fresh, with a head sea; the Sappho half a mile on Champion's lee-beam. At 1·30, we tacked; at 2·10, we shortened sail, and telegraphed to the Champion, 'Acknowledge yourself beaten.' The answer was, 'Terribly;' as indeed it was, we being 6 miles dead in the wind's eye of her. The general opinion among my officers was, that the distance was from 7 to 8 miles, but, that there might be no exaggeration, I booked it 6 miles; the wind, during the time, not having varied half a point.

"From the 28th to the 7th instant, when we parted company, about 200 miles from Jamaica, we were running with a fair wind, sometimes right aft, occasionally drawing forward to the beam, but in general on the quarter; the Champion, under whole topsails, royals, and studding-sails alow and aloft; the Sappho generally with a reef in her topsails, sometimes hauling aft the main-sheet: but, except for a few hours, when, from a divergence in the courses of the two vessels, the distance between them had considerably increased, we never set either royal or studding sail, during the whole time we were together.

"Before we parted, King having come on board, expressed his astonishment at what he called the witchlike pranks of the Sappho. 'Sometimes,' said he, 'the Champions thought they were keeping way with us tolerably well, when suddenly, without any apparent cause, away the Sappho would start ahead.'

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* Champion, 14, built 1824, by Captain Hayes.

What was so mysterious to him admitted of an easy solution, it was simply this:—I soon saw that ours was so decided a case of superiority, that I ceased, in a measure, to have the same interest I felt at starting; and consequently, when the people were occupied about any work, which I did not like to interrupt, the sails often remained untrimmed in the partial shifts of wind, until the work was done, or the decks about to be cleared before meals.

"After the above statement, it may appear too like an anti-climax to say, that I spared a teak-built liner, Cornwallis, 13 sails; beating, or at least holding way with, her, under topsails, when she was crowded with every stitch she could set before the wind.

"It now only remains for me to add, that I joined the Sappho unprejudiced, or, if I had any bias, it was rather against than in favour of her; in so far, that I expected to find her a fast vessel certainly, but also a most uneasy one, and one that would expend spars, and tear her rigging to pieces. Indeed, so persuaded was I of this, that I did not, at first, attempt to hang a cot in my cabin, fearing, as I expressed it to some of my friends at Plymouth, that my head would be pitched through the aft bulkhead and my feet through the fore one. A cruise in the Gulf of St. Lawrence has long since convinced me of the fallacy of my original impressions. No vessel can strain her rigging less than she; and if it be objected to her, that she is wet, as it has been frequently done in my hearing, my answer is always simply this:—If in a head sea, or blowing half a gale of wind, by carrying a press of sail you drive a vessel through the green seas, some of the spray must find its way on board; but reduce the sail—lay her to—and she bows and walks over the seas in the easiest and most beautiful style.

"Your obedient servant,

"THOS. FRASER."

[Now Captain T. Fraser, of 1841.]

"To Sir W. Symonds."

H.M.ST.-F. GORGON, 320 *h.p.*

Built 1837, at Pembroke. Tonnage, 1117.

No. 168. *From Commander S. C. Dacres, R.N.*

"H.M.St.-Frigate Gorgon, Plymouth, 9th September, 1838.

"SIR,

"In compliance with orders from the Lords Commissioners of the Admiralty, that I was to report the manner in which the machinery of H.M.S. Gordon worked during her passage, I beg leave to forward the following remarks:—

"At noon on the 8th inst., we cast off from the buoy in Portsmouth Harbour, with H.M.S. Venerable in tow; the wind N.N.E., against a strong flood tide; the engines at once performed 11½ revolutions. On the pilot leaving us, we both made all plain sail; wind right aft, going 8 knots and 13 revolutions. On hauling round St. Catherine's point, with the wind a-beam, 9½ knots and 14 revolutions; and on the breeze freshing, under double-reefed topsail, foresail, and one reef in boom mainsail, we averaged, in running to the Start, 8 knots and 13½ revolutions; the engines working splendidly. From thence to Plymouth, with a moderate breeze right ahead, all sails furled, she towed the Venerable at the rate of 6 knots, 11½ revolutions; and anchored at Plymouth, 6·45 A.M. The Gorgon's trim, 16 ft. 9 in. aft, 16 ft. 5 in. forward.

"The outer float of wheels was taken off at Portsmouth. The steam was got up in 45 minutes, and no more than 1¼ tons of coal used for the purpose; during the passage, 24 bushels per hour has been the average consumption. From the very favourable state of the weather, the sea being smooth, this cannot be considered a severe trial for the engines; but from the beautiful manner in which they have worked, Mr. Seaward is quite content with their performance, and has no wish for further trial under his own superintendence. During the whole time the hawser had a severe strain.

"I have the honour to be, Sir, &c.,

"S. C. DACRES, Commander."

[Now Captain S. C. Dacres, Superintendent of Haslar Hospital.]

No. 169. *From the same.*

H.M.St.-Frigate Gorgon, Santander, 12th October, 1838.

"MY LORD,

"In obedience to your Lordship's direction to transmit to you, for the information of the Lords Commissioners of the

Admiralty, a return showing the greater immersion that has taken place in H.M.St.-Frigate Gorgon than was intended by the constructor, and the additional weight of engines, boilers, stores, and provisions which had contributed to it:—

"I beg leave to inform your Lordship, that her greatest immersion was on leaving Plymouth, her draught being 17 ft. 3 in. aft, and 16 ft. 3 in. forward, when she had the following additional stores, viz.: bread, 10 tons; slops and stores for marine battalion, 10 tons; supernumeraries and effects, 7 tons 5 cwt.; carpenter's stores for H.M.S. North Star, 4 cwt.; with forty additional shell, weighing 1 ton 10 cwt.; spare machinery, 37 tons; making a total of 65 tons 15 cwt., besides a large quantity of packages and hampers (private), belonging to the officers employed on this coast. The coal-boxes at that time were full, containing between 380 and 390 tons.

"On the 23rd October, 1838, on leaving Santander, the boilers being run up, and 240 tons of coal, which, I believe, was the quantity she was intended to carry, with six weeks' provisions on board, her draught was 15 ft. 8 in. aft, and 15 ft. 3 in. forward.

"The difference of the weights of engines of 220 and 320 horse-power, I am not aware of; those at present on board Gorgon are 276 tons, including 48 tons of water in the boilers.

"The weather has not permitted any severe trial, but the engines, in the favourable weather we have experienced, have worked up to 14 revolutions, averaging 9½ miles per hour. On the night of the 8th inst., with a strong breeze, when a sailing ship would hardly carry treble-reefed topsails and smooth water, she averaged 6½; and it was the opinion of the officers on board, that the Salamander, under similar circumstances, would not have steerage way.

"I have the honour to be, my Lord,

"Your Lordship's obedient servant,

"S. C. DACRES, Commander."

"Commodore the Right Hon. Lord John Hay, C. B."

No. 170. *From Commodore Lord J. Hay, R.N.*

"North Star, 19th October, 1838.

"MY DEAR SIR WILLIAM,

"I had the pleasure to receive your letter of the 24th ult., by Pantaloon, and that of the 22nd, with the reports on Vanguard and Pique, yesterday, by Devon. I always thought

Boxer would do Pique justice, and throw all the slanderers overboard. The papers you were so good as to send me were not only amusing, but very interesting to me. I have no doubt I shall be able to set our Naval scribblers right about Gorgon. So far, she is proving herself a very superior vessel; *fast* and *particularly easy and dry*, when going against a head sea.

"I recommended Dacres to get her upon your trim as soon as possible, and it increased her rate half a mile an hour. On her last run to Santander she averaged 9 and 6 knots. I was prevented going out in her. I have ordered her to join me for the purpose of embarking 1200 men, to land on the coast. I tried her with 700, and you could not have supposed she had more than her complement on board. I will not venture to say more at present, than that I have the greatest confidence in her performances coming up to all your expectations.

"I doubt very much if she requires a 320-horse power; and it appears to me, the engine is placed too far aft, at least a foot or two. I made Phœnix * report the effect of filling her boilers on the draught of the vessel. She came down 7 inches by the stern, and 2 by the head; Gorgon 6 by the stern only. I make Gorgon carry two months' provisions and water, with sixteen days of coal. Immediately she anchored here, I had the paint-brush at work with great effect on her appearance. I will write you the instant I have given her a fair trial: I purpose doing so, under sail, in company with Tweed. I am glad to hear you are gaining strength. The affairs of the Spanish Queen are rather at a discount at present; but I have seen them much worse, so I do not despair of all coming right shortly.

"I wish Henderson had one of your ships in hand. I think him one of our best officers, and a man on whose judgment you can depend. Phœnix's boilers are so bad that I am obliged to send her home, so I conclude their Lordships will allow me to keep Gorgon till Salamander is ready.

"Believe me, very sincerely yours,

"JOHN HAY."

"Sir W. Symonds."

No. 171. *From Commander S. C. Dacres, R. N.*

"H.M.S. Gorgon, San Sebastian, 23rd Oct. 1838.

"DEAR SIR WILLIAM,

"As everybody seems to know so very much about Gorgon, I have thought that you, perhaps, may not consider it

* Phœnix, 260-horse power; built 1832, by Sir N. Seppings.

trespassing on your valuable time, just to read an account of the little that we on board the said ship have as yet discovered. We have now 245 tons of coals on board; six weeks' provisions, boilers full, 20 tons of water. She draws (anchors at the bows) 15-8 ft. forward, 15-8 ft. aft. With smooth water last night, no wind, we passed Comet as if she had been at anchor; they say going 7 knots, we only 9½. I have put on the third float.

"She appears to me to feel head-winds much less than Salamander; and even against a considerable head sea, kept to 8¼ miles; no wind at the time. Filling the boilers brings her down 8 inches by the stern, and lifts her bow 2. The Phœnix is brought down nearly the same. The way she steers is the admiration of every one; no boat could be handier; but she seems to jerk the rudder a good deal, and with the short tiller seemed inclined to take possession of the wheel. Since I have shifted the long one, it is much better; but this is when either at anchor, or not moving through the water. Perhaps the rudder *may* bear reducing, but that of course you know best.

"The capstern is very bad indeed; particularly in mooring or unmooring, when the men have to walk, while at the bars, over both chains. Nothing that I can see will remedy this but a windlass having the bitts in her for riding by on such a coast as this. Lord John talks of having the cables to work on the other deck on account of the angle. I don't agree with him, and think it would be only an increase of difficulties as to the masts and yards. I am becoming rather a convert to them, though at first they looked rather large. The main boom is not stout enough, and besides is a shockingly bad spar. We have been obliged to put a large dolphin-striker, but the boom is not well secured even now; whiskers are necessary.

"I have not had a chance of trying her under canvas, without the wheels, but hope soon to have one. Constant moving about has shaken things into their places. I think we should gain much stowage of water (which we want) by allowing the fore hold to be carried right across the ship, and likewise a bulk-head in the coalholes, on each side, to keep the *reserve* of coals forward, say 70 or 80 tons of a side, or more. You would then preserve her trim much better by using the after coals first. We had 370 tons on board when we left Plymouth, and with slops, bread, spare engine gear, &c., were very deep; but she certainly did not roll heavy or deep. Another cable would likewise be an advantage; but these things are such trifles, that I am ashamed of mentioning them. My own opinion is, that with the quantity of coals we have at present on board (which is fourteen days' consumption), she is as handsome and fine a vessel as

ever swam. The Cyclops, if longer, will be better of course; but for a gale of wind, I would stake everything I have in the world on the Gorgon's behaving as well as any ship that ever was built. As for Salamander or Phœnix, they frightened half the people on board of them in one of the N.W. gales we have here. I am in hopes of soon trying her under topsails; but I suppose we shall soon go home to old *Sal:* rather disgusting; but even that would be better than to be exchanged out here, and the ship brought home by a set of men that would let her go to ruin, because they had nothing to do with her; and then it would be said it was our fault.

"I have tried, and will try, everything in my *power* to do her justice, if I were only to have charge of her for a week; and, much as I wish to go on shore, would rather, now we have begun, remain the six months the men have to serve, than be paid off now. She certainly is a great favourite with the men, in spite of the decks they have to clean. The First Lieutenant has a plan under weigh, of a screw that the pinnace is to turn on out of the way of the bars. If we can get a good gale, I will write the result. The machinery works beautifully.

"I remain, dear Sir William, &c.,

"S. L. DACRES."

"Sir W. Symonds."

No. 172. *From the same.*

"Santander, 29th November, 1838.

"DEAR MR. SEAWARD,

"We have just returned from a trial cruise, Pantaloon in company; having been sent out for the purpose of trying the sailing and steaming qualities of Gorgon. In the first place, I must tell you that before this trial we had seen no bad weather in the vessel: strong breezes, but always smooth water, in which we had got up to nearly 15 revolutions, and close upon 10 knots. Mr. Ingle had, however, been enabled to get the engines into most splendid working trim, and out we went with all three floats on, 250 tons of coal, and 10 weeks' provisions; drawing 15-8 ft. aft, 15-3 ft. forward.

"Now, as I am sure you will be pleased to hear of the good qualities of Gorgon under sail, I shall give you a short sketch. The first day, light airs; disconnected the engines in thirty-eight minutes, and put the fires out. Pantaloon hardly able to keep astern under her topsails, and when ordered to make sail, going 4 knots. This was a bad beginning, but I soon found

that it required a breeze that would propel the vessel nearly 3 before the wheels work, so I fear in very light weather we must be content to remain astern. The next day, had a fine squally day for it, which brought us to a close-reefed fore-topsail, reefed foresail, gaff-foresail, main-trysail; and though Pantaloon's signal was made at 8 and 12 to close, the old smoker had to run down to close them at four P.M. We went 5·4. The truth was, we had the advantage while the breeze was strong.

"The next morning, moderate and smooth water, unshipped 24 floats from each wheel; just the eight entire paddles that took the water, on a side; two hours about it. You would have laughed to have seen the Pantaloon's people when we made sail. She began with topsails, and ended with every stitch they could hoist; and for two hours it was doubtful which gained, as they themselves telegraphed. They then came upon our quarter, and were particularly anxious to play the old game of a dead luff; knowing that, under the present circumstances of wind and weather, no vessel could have a chance with them at that game.

"I took the liberty of drawing a little more through the water, when we forereached so considerably that it was a question who would have weathered on the other tack. That night it came on to blow; under the gaff-foresail close reefed, main-trysail and outer staysail. Pantaloon, main-topsail close reefed, main-trysail, fore-staysails (by their own account not able to carry more sail), at 8 o'clock; Pantaloon right ahead 2 miles.

"At 10, passed to windward as if she had been at anchor, and saw no more of her; wind W.N.W. The next day at noon, found that we had made but 1 point leeway, and on comparing lat. and long. by obs., found we were 43 miles N. 54° W. of her, being that distance nearly dead to windward. I must tell you that we wore remarkably well under that sail, and that both vessels continued on the same tack the whole time. The next day, more moderate; took off all the remaining inner floats, and shipped two all round. This, from the heavy swell, occupied 3h. 18m.

"Next day, tried the ship off the wind; close-reefed fore-topsail and main-staysail, 8 knots. At noon, the weather looking very bad, down mast and yards, connected engines. By six o'clock, a very heavy sea, and blowing a strong gale, under trysails. Wore at eight beautifully; lit the foremost fires; set on at *most* reduced speed possible; hatches all battened down, going 4 knots, steering to half a point. The gale continued till four in the morning, as heavy a sea as you will see. We never shipped water or strained a thing; not the slightest *creak or vibration in the engines.* The next day, with the wind at south, right ahead; three P.M., going 6 knots 4 fathoms. Pantaloon

12 miles from us, under close-reefed topsails and fore-staysails; a heavy swell from the westward. On nearing the land, smooth and calm, 10 knots 4 fathoms, 16 revolutions; certainly showing the advantage of the inner floats being off; as we had repeated trials with the same draught of water (which is as she ought to be), and never came up to that rate: the barometer for the air pumps, starboard 28¾, larboard 28½. This, I should say, must be a good vacuum, but I am no great judge. I think, on the Gorgon's return, you will find the engines all right; but that, of course, is more Mr. Ingle's than my affair. I am delighted with every part of her. Every body talks in raptures of the vessel, which is good, considering how prejudiced you must suspect them. The best I have heard is from the old pilot of Pantaloon. He says she is a wonderful vessel, and he is certain would beat all the sloops and most frigates, but not Pantaloon! I perfectly agree with him. I forgot to say that every one agreed that she was the easiest vessel they had ever been in.

"The compressor for holding the wheels will, I think, answer when altered; they are about it. I should have written to you before, as I promised, but had nothing to say sufficiently important.

"I think this will be satisfactory, and should like to make Mr. Harrison, of the *Hampshire Telegraph*, eat dirt, as we say in the East. Perhaps you will get a look at my report to Lord John Hay; but I have given you the *facts*, only a little curtailed. I hope you will be able to read this, and with best respects to your brother,

"I remain yours sincerely,

"S. C. DACRES."

"J. Seaward, Esq."

No. 173. *From Commodore Lord J. Hay.*

"H.M.S. North Star, Passages, 4th December, 1838.

"SIR,

"I have the honour to acquaint you, for the information of the Lords Commissioners of the Admiralty, that in obedience to their Lordships' directions, contained in your letter No. 136, of the 20th October last, I directed Commander Dacres, of the Gorgon (enclosure No. 1), to proceed to sea in company with the Pantaloon, for the purpose of trying the sailing and other qualities of that ship.

"I enclose Commander Dacres' report of the trial, also copies of the logs of the Gorgon and Pantaloon, together with the observations of the acting Master of the Gorgon.

"Being aware of their Lordships' desire to possess the fullest information respecting the qualities of this ship, under all circumstances, and knowing the variety of opinions that generally follow trials of this description, I have endeavoured, by every possible means, to arrive at the general opinion of those officers who have witnessed her performances since her arrival on the north coast of Spain; and the conclusion I have come to is, that the Gorgon is a very superior vessel, easy in her pitching and rolling motions, and under all circumstances of weather a good sea-boat.

"The different passages she has made on this coast, when propelled by steam, as compared with other steam vessels, proves her to be exceedingly fast, generally performing the run from San Sebastian to Santander, a distance of 90 miles, in four hours less time than either the Phœnix or Salamander *; and the result of the trial appears to me to have established the superior qualities of the Gorgon, when trusting entirely to her sails, with the engines disconnected.

"The nature of the service on which the vessels on this coast are employed, prevented my extending the trial beyond ten days; it is my intention, however, to again order Commander Dacres to proceed to sea in company with the Pantaloon for another trial.

"Their Lordships will observe that Commander Dacres complains of the main-boom being weak (thereby paralysing the effect of the main-sail and gaff-topsail); also of the jib-boom requiring additional support. I have directed him to strengthen the main-boom by fishes, and give such additional support to the jib-boom as it requires, in order that the ship may have the full effect of all her sails.

"I have the honour to be, Sir,
"Your obedient servant,
"JOHN HAY, Commodore."

"Charles Wood, Esq., M.P.,
Secretary to the Admiralty."

From Commander S. C. Dacres, R. N.

[Enclosure in preceding letter.]

"H.M.St.-Ship Gorgon, Santander, 26th Nov. 1838.

"MY LORD,

"In obedience to your directions to proceed to sea with H.M. Brig Pantaloon, to ascertain the steaming and sailing

* Salamander, 220 h. p.; built 1832, by Mr. Seaton.

qualities of H.M.St.-Ship Gorgon, we weighed from Santander on the 17th instant, in company with H.M. Sloop Tweed, with strong south-west winds, and smooth water, under all plain sail, with single-reefed topsail; expending from 10 to 12 bushels of Spanish coal per hour. Steam nearly entirely shut off, only making 7 revolutions, we had a decided advantage. On steaming with full power, we headed that ship 3 miles during the hour, going at the rate of 10½ knots and 15 revolutions. During the night, having stopped engine, and banked up the fires, under a square foresail, double-reefed topsail, staysail, and single-reefed boom-mainsail, she worked the whole machinery, going 4½ knots.

"At daylight, on the 18th instant, fell in with H.M. Brig Pantaloon; 10 A.M., disconnected the engines, which occupied 38 minutes, and put out the fires. During the whole of the day light winds and a calm, the Pantaloon with difficulty kept astern, under her topsails; we never having sufficient wind to force round the wheels, averaging 2 knots. 4 P.M., I directed the Pantaloon to make all sail, to enable me to judge of the effect of the light wind on a sailing-vessel, when she telegraphed her rate to be 4 knots. During the night, we found that it required a breeze that would propel the vessel 2½ knots ere the wheels revolved; consequently, that the steamer could do little, in comparison with sailing-vessels, in light winds.—On the 19th, with a strong breeze from W.N.W., under reefed foresail, close-reefed fore-topsail, main-trysail, and gaff-foresail, averaging 5 knots, if anything, gained on the Pantaloon while the breeze lasted.

"20th, unshipped 25 floats from each wheel, with a moderate breeze; both vessels under all plain sail, the masts of Gorgon not at all complaining, but boom-mainsail and gaff-topsail standing very badly. For two hours it was doubtful which vessel gained, which was telegraphed by Pantaloon on my asking which had the advantage. On the breeze falling, she gained, from our attempting to keep too close a luff; but, on allowing Gorgon to draw more through the water, we forereached, and on tacking (which evolution she performed in three minutes and a half), we should have either weathered or passed close to her stern; but both vessels were obliged to shorten sail to a violent breeze from the W.N.W.

"I think we should have beaten most other vessels considerably this day, but the smoothness of the water was well calculated to give the Pantaloon every advantage. At 6·30 P.M., Gorgon under main-trysail, close-reefed gaff-foresail, outer staysail; Pantaloon, main-trysail, main-topsail, and fore-staysail (as much canvas as she could with security carry): Gorgon wore under this sail remarkably well. At 8, fresh gales; Pantaloon

N. by E. 2 miles right ahead; 10, passed to windward of her. At daylight she was not in sight; 8·45 A.M., Gorgon set close-reefed fore-topsail; gale continued until noon. By comparing the two ships' latitude and longitude at that time, it will be seen that we bore N. 54 W. 43 miles; that being nearly dead to windward, and both vessels having continued on the same tack during the time. Employed taking off the inner float from each paddle; weather more moderate. At 4 P.M., shipped the floats, which occupied, from the swell, three hours and eighteen minutes.

"On 22nd, squally weather; close-reefed fore-topsail, reefed foresail, and outer staysail; wind little abaft the beam; standing to the southward, averaging 8 knots. Noon, strong breezes, with threatening weather; barometer 29·5 in.; down fore and fore-topsail yards, fore and main topmasts; connected engines. At 4, strong gales, with a heavy sea; ship under trysails and fore-staysail. 8 P.M., battened down hatches and hooked relieving tackles; lit six foremost fires, sea increasing. 8·30, wore ship, which she did splendidly; reefed main-topsail. At 9, set on the engines with their most reduced force, averaging 4 knots; steering *perfectly*.

"The gale continued until 4 A.M., the squalls very violent, and the sea running heavy; but the ship was remarkably easy, not shipping any water or straining a rope-yarn,—in fact the admiration of every one on board. At 6, more moderate, with a heavy swell; wore, and steamed on for Santander. At 9, fell in with H.M. Brig Pantaloon; 11, fresh breezes right ahead, averaging 7 knots; on nearing the land, light winds and smooth water, 10½ knots; making 16 revolutions. This is the most we have ever gone. During this trial her draught has been 15 ft. 8 in. aft, and 15 ft. 3 in. forward; 250 tons of coal, 10 weeks' provisions, and 22 tons of water.

"Through the whole of the last heavy sea and weather I watched the engines most minutely, and nothing, in my humble opinion, could work more beautifully; not the slightest vibration in any part. On the 23d, anchored in Santander. During this cruise I have found the main boom perfectly unfit to carry the sail.

"I have the honour to be, my Lord,
"Your most obedient humble servant,
"S. C. DACRES, Commander."

"The Right Hon. Commodore Lord John Hay, C.B.,
"Passages."

No. 174. *From Commodore Lord J. Hay.*

"H.M.S. North Star, Passages, 19th Jan. 1839.

"SIR,

"I had the honour to acquaint you, by letter of the 4th ult., with the result of Gorgon's first trial in company with the Pantaloon.

"On the arrival of H.M. Sloop Rose on this coast, I directed Commander Christie to proceed to sea for ten days, in company with the Pantaloon, for the purpose of again trying the sailing qualities of the Gorgon with the engines disconnected; also her properties as a sea-boat.

"I have now the honour to forward, for their Lordships' information, Commander Christie's report on the result of the trials. As Commander Christie, in his report, refers to the logs for the bearings and distance gained on Gorgon by the two sailing vessels, I have laid off the true course made, and distance run, during each day's trial, taken separately from the logs of the respective vessels; and each vessel is placed at the conclusion of the day's trial, agreeably to the bearings and distance therein given.

"On referring to the enclosed diagrams, their Lordships will observe, that no very material advantage was gained over Gorgon on any one day, excepting in the trial of the 18th, by the wind: but when it is considered that both sailing-vessels were carrying a large portion of sail, it is not extraordinary that the Gorgon, with so limited a spread of canvas, should have been distanced 5½ miles in a run of 37¾ miles, that vessel having tacked four times during the trial.

"The advantage gained over the Gorgon on the 17th, 19th, 20th, and 21st, was very inconsiderable. On the 22nd the Gorgon appears to have maintained an excellent position by the wind, having tacked four times during the day's trial, and in the distance run, 29 miles, only lost 3.

"From all the information I have been able to obtain respecting the qualities of the Gorgon generally, it appears to me quite evident she is a very superior vessel. That the Gorgon is able to maintain a good position in company with sailing-vessels under moderate sail, is proved beyond all doubt by the fact, that in the whole distance run by the wind during these trials, 122¾ miles, Gorgon only lost 11¾ miles; and in a run of 15¾ miles off the wind, she lost 2 miles. Gorgon also appears to have kept her station during the night, when moderate sail was carried, as well as either of the sailing-vessels.

"During these trials, the Gorgon tacked seventeen times, and

only missed stays once; her average time in performing that evolution is 3 min. 55 sec. She steers and wears well; and the conclusion I come to, from all the information I can obtain from her Commander and officers, is, that she is weatherly, and a very fine sea-boat under all circumstances of weather, whether propelled by steam, or trusting entirely to her sails.

"At the conclusion of the trial, the Gorgon returned to Santander, and entered that harbour on the 23rd ultimo, under circumstances of *extraordinary difficulty*, in a *strong gale of wind* from the N.W., with a *heavy sea breaking across* the entrance of the harbour. Two large sailing-vessels, in attempting it at the same time, were swamped in the surf (one of them, a ship of 280 tons, was totally lost, with the whole of her crew); but Gorgon accomplished it without shipping a drop of water. I particularly notice this fact, as it would have been *impossible* for any vessel, the size of Gorgon, to have effected it, had she not been an *exceedingly manageable* vessel, a *good sea-boat*, and *quick* in answering her *helm*.

"During the last trial, the Gorgon carried 300 tons of coal, her water complete, and 10 weeks' provisions for her crew. Her engines continue to work well; no part of the machinery has proved faulty, and no accident whatever has occurred.

"I have the honour to be, Sir,
"Your obedient servant,
"JOHN HAY, Commodore."

"Charles Wood, Esq., M.P., &c. &c. &c.,
Admiralty."

No. 175. *From Commander S. C. Dacres, R.N.*

"H.M. Steamer Salamander, Passages, 28th Feb. 1839.

"MY DEAR SIR WILLIAM,

"I cannot leave Gorgon without writing to you my opinion, humble as it is, of the ship. I have had, during the five months she has been on this station, capital opportunities of seeing her under every variety of circumstances, both under canvas and propelled by steam; and I can say with truth, that I have never been in so fine a vessel. In this opinion every officer in the ship fully agrees. She steers perfectly; has *never* shipped a drop of water, though we have been in as heavy a sea as I ever witnessed; and her motion is remarkably easy. The sails set remarkably well; but I should think the studding-sails might be much increased. The fore-topmast and jib-boom are not sufficiently secured, the cross-trees not being

square enough, and no whiskers. The main-boom is an *infamous* stick, and I should say not stout enough. She certainly sailed much better with Pantaloon when we had 260 tons of coal on board, than with 320; but you will see, by Lord John's report, and though I shall never think we had a *fair* trial, that we were not far behind the two sailing ships. In my own opinion, she would *beat* most vessels whenever there was sufficient wind to take in the topgallant-sail; and, as the breeze increased, the more advantage she would have under her storm-sails, which are not stout enough roped. She is *uncommonly* weatherly.

"I wrote a public letter, stating that she had tailed, in entering this place. She is too big for this station; but I am sure her being on such a stormy coast has convinced others besides myself, that her masts are not one bit too large. I hope Henderson will commission her soon; and believe me,

"Yours most sincerely,

"S. C. DACRES."

"Sir W. Symonds."

H.M.S. DAPHNE, 18 *guns*.

Built 1838, at Pembroke. Tonnage, 726. A 1st-class Corvette.

No. 176. *From Captain J. W. Dalling, R.N.*

"Daphne, in the Tagus, 13th May, 1839.

"The Hastings sailed on Tuesday the 7th,—Daphne and Espoir in company. We had a light and fair breeze till below St. Julian's; spared both ships a most considerable quantity of muslin; the wind then headed us in the narrowest part of the channel. Hastings under all plain sail except royals; Daphne under topsails and foresail, main-yard square till just before putting helm down. We had only one tack to make, and then bore up W.N.W., wind S.W. Hastings and brig double-reefed topsails, topgallant-sails, and foresail. Daphne, topsails on cap and yawing to keep astern. Very soon taken aback in a heavy squall from the N.N.E.; closed reefed on the starboard tack.

"In the afternoon, more moderate; shook out two reefs, and stood to the westward all night. Found the ship both forereach and weather considerably on the Hastings; so much so, that under topsails and foretop-staysail we were at 4 A.M. (from 12, at which time I placed her close on his weather) at least 5 miles on his weather bow. I am sure we could always lay 2 points

higher; and the way in which, when we let her, she would creep up on his weather, was quite ridiculous, and we also sparing him much sail.

"In the forenoon of Wednesday, we wore and stood to the N.E. On this tack we met a very nasty head sea, and wetted Madame Daphne's face considerably. But we did not appear to pitch more than the liner or the brig, and she went down as easy as a pendulum. Maintained our weatherly qualities quite as much, and nearly so our forereaching; as we could always spare the Hastings either main course, or jib and spanker. I found out that she likes the two latter sails most particularly; springs under them like a racehorse to the spur. At one time, on shooting her up on the Hastings' weather, she went 9·6 against the head sea I have mentioned, without inconvenience to herself or any body.

"J. W. DALLING."

[The late Captain Dalling.]

H.M.ST. ACHERON, 170 *h.p.*

Built 1838, at Sheerness. Tonnage, 722.

No. 177. *From Lieutenant-Commander Kennedy, R.N.*

"H.M.St.-V. Acheron, Gibraltar, 22nd January, 1839.

"DEAR SIR WILLIAM,

"I am happy to inform you that the Acheron finds the advantage of her additional power, and goes well. We arrived here at 3 P.M. yesterday, and shall be off again this day at 3 P.M. We left the breakwater at 1 P.M. Wednesday, making just five days and two hours; and I hope to get up to Malta in less than five. She is a fine ship, and I have no doubt will be, with the Blazer, the fastest among the whole.

"I am, Sir, very respectfully,

"Your obedient servant,

"AND. KENNEDY, Lt.-Commander."

[The late Commander Kennedy.]

"P.S.—The Iberia steam-packet sailed from Plymouth two days before us, and arrived this morning at Gibraltar."

"Captain Sir W. Symonds, &c. &c. &c."

H.M.B. ACORN, 12 *guns.*

Built 1838, at Devonport. Tonnage, 485.

No. 178. *From Commander Jno. Adams, R.N.*

"H.M.S. Acorn, Simon's Bay, 10th June, 1840.

"SIR,

"I have been delaying from time to time writing you, until I could with safety report the qualities of the brig. The only vessel we met on our passage from England was a French 20-gun brig, which we sailed *round and round*, much to his annoyance. We left this place for Isle of France, with a very heavy gale aft, and a tremendous sea; and ran ten days, during which time she never shipped a single drop of water, except the little from the ports. She was all this time under close-reefed main-topsail and double-reefed foresail. She has beat Lily, by their own account, $2\frac{1}{2}$ miles in three hours and a half, dead to windward. On chasing a slaver, only courses up to windward, we made but one tack, going bodily to windward in three hours. The first shot cut away her jib-stay and head of the sail. The prisoners then on board told us she was considered the fastest vessel out of Rio. We beat her, under topsails, going 8, with a nice breeze; *she* under a press of sail.

"Our trial with Modeste was short, but we had the advantage on all points. I experienced the heaviest gale I have ever been in a short time since in Mozambique; I may say, a perfect hurricane. We were only 15 miles from the shore when it commenced; our sails were blown to pieces. I never met a finer sea-boat, and her working is quite perfect; she will stay as fast as the men can go from brace to brace. I consider her, as far as I may be allowed to judge, perfect. She carries her long guns well; and I only wish we had four more. If allowed, there is but one alteration I would make; that is, her main-topmast, either by putting in stools in the chains for more spread to the backstays, or taking off two feet of the mast, and giving it in the yard.

"Going 11 knots, coming into this place, under topsails and topgallant-sails, in company with a fast American barque, (which we passed as if at anchor,) to see the result, I furled the topgallant-sails, double reefed the topsails, and found her go just the same. On this point I have made repeated trials, and find she likes *low* sail, which gives us the opportunity of keeping way with other ships with little sail, when they are under all.

We stow now 6 months' of everything, and 50 tons of water; not a thing on either deck. I have such confidence in her, I would sail, or work, against any vessel of her tonnage on the sea.

"I have the honour to remain, Sir William,

"Your obedient servant,

"JOHN ADAMS, Commander."

[Now Captain J. Adams, of 1843.]

"Sir W. Symonds, &c. &c. &c."

H.M.B. GRECIAN, 12 *guns*.

Built 1838, at Pembroke. Tonnage, 484.

No. 179. *From Commander William Smyth, R.N.*

"H.M.S. Grecian, off Rio Janeiro, Feb. 11, 1839.

"MY DEAR SIR WILLIAM,

"I have no doubt but you will be charmed to learn that this *lovely* vessel ran out to this port in 35 days, with the greatest ease; and I think had I tried to have made a quick passage that I could have done it in 28; for I fitted her out, painted, &c., on the passage, sailing for a week together under *one sail only*.

"We are now out upon a trial with Calliope; and it affords me the greatest satisfaction to inform you that I have, in the trials we have made, just weathered upon her one mile, dead to windward per hour (in five hours, 5 miles dead in the wind's eye); the Wizard, a 10, not standing the least chance with either; and the Royalist, *a schooner yacht*, being beaten in the like ratio (nearly) with the Calliope. I find her very weatherly, and when sailed in trim, *quite perfect*.

"She rolls deep but easy, and does not in the least appear to strain any of the gear; and in a head sea she dances over it buoyant as a cork.

"Hoping that you are in the enjoyment of your health, as also Lady Symonds,

"Believe me, yours very faithfully and sincerely,

"WM. SMYTH."

"Sir W. Symonds." [Now Capt. W. Smyth, of 1843.*]

"P.S. I assure you Grecian is the talk of all the Naval characters here, and the *dread of the slavers*."

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* Capt. Smyth was First Lieutenant of the Arctic ship Terror, and is author of a "Journey from Lima to Para."

No. 180. *From the same.*

"H.M.S. Grecian, Sept. 1839, off the River Plata, returning to Rio from the Falkland Islands.

"My dear Sir William,

"I am just now on my way back to Rio in this *charming* vessel, having been sent down to the Falklands to investigate some squabbles there; and as I have had a very boisterous trip of it, I write merely to tell you how delighted I am with this beautiful brig. While we were at Buenos Ayres, we had a most furious gale; all the vessels drifted, and Grecian likewise; but I found the stock of the best bower-anchor broken short off, which accounted for her driving. There was a very nasty, short sea, which made the other ships ride very uneasy; but this darling rode like a duck, and was the admiration of all who saw her.

"In running up the river, the pilot was amazed with her velocity, for *actually*, with the yards *fore and aft*, and the sails well lifting, she went, for a continuance, 10 knots and 6 fathoms. On my passage down to the southward, I had strong breezes from the S.W., and was obliged to carry *a power* of canvas on the brig to fetch the islands, which I just effected, and had a two days' beat up under reefed courses, close-reefed fore-topsail, and treble-reefed main, with a close-reefed boom-mainsail and storm jib. I would have given any money to have been in company with any other vessel at the time; there was a good deal of sea up, and it was blowing a good fresh gale. I wanted to see what she was made of, and I found her *perfect*, going under that sail, 8, and 6, and 9 knots, with the yards well up, and lifting sails; of course slashing the spray fore and aft, but standing to her canvas splendidly, and this too under a great disadvantage, for we had only 2½ months' provisions on board, instead of having the proper quantity, 4 or 6 months'.

"After I entered Berkeley Sound, I beat her up through the Narrows, with the wind *dead on end*, and against a lee tide; and the channel in one part, for a considerable distance, is only 126 fathoms wide. To be brief, as much as I have seen of Grecian, I consider her to be the nearest to perfection of any vessel that I have ever served on board.

"I have not yet been in any gale with her, where we have *been obliged* to heave-to for *stress of weather*, though I have reduced the canvas to the storm staysails; and I found her, when in bad weather and thus hove-to, quite dry and comfortable.

"In her pitching motion she is very quick, but it must be a *very heavy* head sea, and the brig *hard* pressed, that will make

her bring up with a *sudden* jerk; she generally falls *very easy*, and rises with *great buoyancy*.

"I have not found any cause to oblige me to alter her stowage in any way from the plan which I gave you. Now that we have worked up a considerable portion, or indeed all of our dock-yard '*nimavilines*,' she sits exactly two feet by the stern. Strange to say, I have never yet been running in a breeze with her, therefore I cannot speak as to her conduct in a sea-way with the wind aft; but as I expect a good rattling south-wester to-night or to-morrow, to shove me to the northward, I may have a chance, before I conclude this, of reporting upon her scudding qualifications.

"Oct. 10th. Since writing the above I have been scudding in a strong gale, with a tolerably high sea up, and it is with great pleasure that I tell you I found her *easier* than any vessel I was ever on board under such circumstances. She does not go on with that horrid, incessant, damnable roll that I have been used to in other vessels; but runs along as upright as a swan, and only gives a roll when a heavy sea lifts her under the quarter. As I had her rather too much by the stern, 2 ft. 2 in. during the gale, I lightened her a little aft, by removing a few things, and I considered by so doing that she sprang up quicker to the wave.

"Were you to ask me, Sir William, to make any alteration in the vessel, I should decidedly say, none could be made for her improvement. When lying dead-to (not exactly dead-to, but drawing ahead a little), she is beautiful, and dry as any vessel can possibly be under such circumstances. In short, you have spoiled me for any other vessel; for, really, I don't think I could sail in any other after the Grecian. How does Pilot? I long to hear about her. I congratulate you on your son's success in Rover.* I never doubted it myself. What is Dalling about in Daphne?

"My kind regards to Lady Symonds, who I hope is well, and believe me,

"Ever yours very sincerely,
"WM. SMYTH."

"The Yankee Commodore, Nicolson, says she is the most beautiful vessel he *ever* saw.

"You have heard of my having taken four slavers. Grecian is the terror of those engaged in this traffic here. I go out to-morrow for two months. We beat *everything* I have yet seen."

"Sir W. Symonds."

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* See pp. 490—495.

H.M.St. MERLIN, 312 *h. p.*

Built 1838, at Portsmouth. Tonnage, 889.

No. 181. *From Commander T. Bevis.* (?)

"Redwing, Liverpool, May 18, 1839.

"SIR,

"With reference to my letter of the 16th inst., I beg respectfully to report, for the information of my Lords Commissioners of the Admiralty, my return this morning from a voyage in the Merlin; and having made notes of her performance, I have to report the same.

"She let go the moorings off St. George's Pier at 5·20 P.M. on the 16th inst., it being then the last quarter ebb; and passed over the bar of the New Channel, at 6·20, in 2 fathoms water, drawing 9ft. 2in., one hour before low water. It was then blowing fresh from the W.N.W., the course being N.W. by W., and a whole flood coming against her; notwithstanding, she was steaming by the log 11 and 12 knots, with the engines making 18 revolutions; and although, from the strong ebullition of the water in the boilers, it passed into the cylinders in small quantities, which made it necessary to go at half speed for about one hour and a half to work it off, yet she made the passage out in twelve hours forty-three minutes, after starting against a whole flood, with a head wind.

"On the return voyage, draught of water, aft, 8ft. 11in.; forward, 8ft. 5in. She passed Kingston pier-head at 5·50 P.M. yesterday, under the topsail double reefed, with foresail, inner jib, and stay-sail; blowing very strong at S.S.W. and South; the course being E.S.E. After getting without the Banks, and towards mid channel, the sea rose considerably, and being right a-beam, the ship rolled very quick and deep, but easy. The engines were then making 16 revolutions, and she was going by the log 10 knots. The wind increased to a fresh gale, with a high sea, and she continued to roll quick and to windward against the sail, which appeared to have very little effect upon her, as to keeping her steady. The engines, however, performed well, and kept her speed up to about 10 knots. Towards midnight, on drawing in with the Welsh coast, the water became more smooth, and she was going 13 knots by steam and sail. At 4·15 A.M., she rounded the Rock Lighthouse, and entered the Mersey, in ten hours twenty-five minutes from Kingston, after crossing the

Channel through a heavy beam sea. Her outward passage, on the 7th inst., was ten hours twenty minutes, a distance of 122 miles; so that I am induced to hope her steaming qualities will be found to answer every expectation, and that she will be fast.

"I am, &c.

"T. BEVIS." (?)

"Charles Wood, Esq., &c., &c., &c."

No. 182. *From Captain H. Robinson, R.N.*

"Rossmead, Castletown Delvin*, Jan. 23rd, 1840.

"DEAR SIR,

"I feel it to be my duty, and I dare say it may be gratifying to you, that I should give you some particulars respecting the conduct of a vessel of your construction, under circumstances of difficulty. These particulars may be of some little value to you, as coming from a competent authority,—at least, that should be so, as I am an officer of rather old standing, and have served a good deal: (perhaps you may recollect me in the command of the Prometheus†, in the West Indies, in 1813).

"I embarked, the day before yesterday, at Liverpool, in the Merlin steamer, blowing hard at W.N.W.; weather threatening, and barometer unsteady. We started after 9 A.M., at about half-flood. The wind gradually increased to a heavy gale after we passed the Lightvessel, and so thick with haze and sea-drift as to make it impossible to see round us. The great doubt of our hitting such a speck as the Lightvessel, and the almost certainty of our being picked up by the shoals on either side, if we did not, prevented the Commander bearing up; for though I assured him that the wind would fall as the ebb made, his longer experience on the coast convinced him that it would not.

"He therefore kept the vessel head to sea (about W.N.W.), engines at full power, and making tolerable way. When the ebb tide made to the westward, against the wind, it, of course, increased the sea, and the wind became still more violent. It is very hard to give a correct idea of the actual strength of a gale, but by comparing it with some other. On the 7th of last January, we had a violent storm here, which blew down 600 full-

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* County Westmeath, Ireland.

† Prometheus, a proverbially bad sailer, which lost her Commander many a prize.

grown trees, and on other and larger properties a still greater number. I asked those who were at sea that night, as to the relative strength of these gales; and I could collect that this latter was nearly, but perhaps not altogether, as extreme.

"In the March of 1820 I commanded the Favourite, and was caught off the Goodwin in a heavy storm. Seventy-three vessels were lost about the mouth of the Thames; everything in company with us perished, and we escaped by letting go the anchors. The cables tore away ringbolts, hatchway, &c., run out to the clinch; and brought us up whilst we struck the topmasts, &c., and we then cut and clawed off under the courses. The gale I am now describing was pretty much such a one as that of March, 1820; and this somewhat tiresome description may bring to a seaman's eye the exact state of the weather.

"To return to the Merlin. They now set a reefed mainsail on the larboard tack, with the sheet nearly amidships, kept her about 3 points off the wind, so as just to fill the sail, and both engines going. She went off, I think, about 3½ knots over the ground (the log, I believe, indicated more). Her admirable stability allowed both paddles to take the water; whilst the ease with which she pitched, and her noble power, prevented her making more than 2 points drift; making her course *good*, on each tack, within 5 points of the wind.

"On the first tack, in consequence, we fetched well over towards the Isle of Man; and on the starboard tack, towards morning, in sight of the Skerries Light, off Holyhead. The wind then moderated somewhat, and they were enabled to take in the sail, put her head to the sea, and make Dublin by 12 o'clock at noon.

"I did not believe the vessel ever swam the sea which could have done this.

"Now for faults. She rolled, I thought, rather much, and had not all the obedience to the helm which I had looked for. Her bulwarks are, it struck me, much too slight to resist a heavy sea. Her wheel was a gingerbread thing, which went to pieces in the men's hands; and her sail, instead of being a storm trysail of No. 1., was a lumbering thing, of finer canvas, reefed down to the tye, the bolt-rope of which, of course, gave way. But as to the grand essentials of securing life and property, and effecting a passage in stormy weather, I think her quite incomparable, at least, as far as my judgment and experience go; and as I consider that I owe to her admirable qualities, under God's mercy, that I am now sitting at my own fireside instead of being probably resting on the shoals of Liverpool till 'the sea shall

give up her dead,' I should not feel acquitted of an obvious duty if I did not make these circumstances known to you.

"Believe me, dear Sir,

"Your faithful, humble servant,

"HERCULES ROBINSON, Capt. R.N."

[Now Rear-Admiral Robinson.]

"Sir W. Symonds."

"I think I should add (though I dare say it is well known), what an able man in his situation the Master of this vessel appeared to me to be. He has a very good crew, and an exceedingly smart, intelligent young man, a Second Master, well deserving of notice. I think his name is Pelham, or some such."

H.M.B. PILOT. 12 *guns.*

Built 1838, at Devonport. Tonnage, 485.

No. 183. *From Commander G. Ramsay, R.N.*

"H.M.S. Pilot, Port Royal, 24th April, 1839.

"MY DEAR SIR,

"On my arrival here, a few days ago, I was astonished when Capt. Henderson, of Edinburgh, and others, told me of the infamous reports which had appeared respecting my Brig in the *U. S. Gazette*, and some other paper; but they could not show me any of them, or I should have flatly denied all. If such as I have been told, appeared in print, and was said to be from an officer of this brig, I have my idea who has done so.

"No brig or ship I have yet met can get away from her, *and I do not except the Pique.* Snake has no chance whatever with me; but my friends out here are few. Coming from England to Bermuda, I had the most dreadful weather; and had Pilot not been a first-rate one, I never should have got out of Biscay Bay.

"I have sailed against everything, 22 inches by the stern, 14 feet 4 inches draught; and at any time a child may steer her.

"I care so little for what strangers say of me or my brig (those who know me will not believe it without proof), that I have not contradicted a word of the falsehood—I can call it nothing else.

"Rover gone down to Honduras.

"Pilot just arrived from Nassau; 140 soldiers on board.

"When I meet your son, I hope he will give you a true statement of Pilot. She is far beyond my expectations.

"I remain, dear Sir,

"Yours very sincerely,

"GEO. RAMSAY."

[Now Capt. G. Ramsay, of 1843,
Captain-Superintendent of Pembroke Yard.]

"Sir W. Symonds,
&c., &c., &c."

No. 184. *From the same.*

"Pilot, Port Royal, April 26th, 1839.

"MY DEAR SIR W. PARKER,

"I have now had a fair trial of Pilot; and certainly no craft, in my opinion, will come near her on any one point.

"On my arrival here, Capt. Henderson, of the Edinburgh, told me he had seen a most abusive letter of Pilot in the *U. S. Gazette*, said to be from an officer in her; but he could not show it to me, or I would have denied all most flatly. I have an idea who the officer is:—neither of my lieutenants.

"I can only tell you my opinion of the brig before I had sailed with any man-of-war,—that on my arrival here I offered to sail for any sum, and give one reef and royals on any point. Since then I have sailed with Pique and Snake, and Captain Boxer allows I beat him; Snake, for 15 days, in all sorts of weather, royals to close-reefed topsails and reefed courses; she has no chance with me in any weather.

"I hope you will excuse my asking you if it is worth taking notice of the false statements made in the *U. S. Gazette* and Portsmouth paper.

"I have come down from Nassau with 140 black soldiers, 18 wives and children, and 3 officers. I am now getting a *whitewash*, and shall be ready in another day. I have completed my new complement, 120, and, I believe, go to sea on Saturday. If I can be of any service, out here, to you, pray command me.

"I have the honour to be, Sir William,

"Your very obedient servant,

"GEORGE RAMSAY."

"To Rear-Admiral Sir W. Parker,
&c., &c., &c."

No. 185. *From Commander E. M. Lyons, R.N.*

"H.M.S. Pilot, Torbay, July 19th, 1848.

"My dear Sir William,

"I take the advantage of five minutes to give you an account of our proceedings. The day we sailed from Spithead, the signal was made,—'Sloops, chase to windward.' Just able to carry royals, going 8 knots, with rather a head sea and swell. The trial lasted an hour and a half, at the end of which Pilot had gained 936 yards on Frolic*, and brought her from the weather quarter to the lee one; so that, from being a point on her lee bow, we finished exactly in the wind's eye of her, besides having increased our distance 936 yards. Tweed † nowhere. Helena ‡ did not shake her reef out, or set her royals, until ordered by the Admiral, and so put herself out. This trial the Admiralty saw from the St. Vincent.§

"Next day tried with wind on the quarter, light airs, going 2 to 3 knots. Helena and Tweed gained a little on the Frolic; Racer ‖ holding her own with us; too little wind to make the trial worth anything. — Third day, Tweed sent to windward, and hove-to. Brigs ordered to go round her, and pass under Admiral's stern. This twice repeated, Pilot winning both times; pace, 5 to 6 knots.

"We have just anchored, after a splendid trial. The squadron are at anchor in Torbay, and the Amphion was sent out in the morning for us to go round. Weighed, and after some delay, all the ships made a good start at 11, for Amphion, with the wind a-beam, going 11 knots. All kept very close together till we hauled our wind under her stern, when we went away from them in surprising style; weathered the Blenheim (the weathermost ship at anchor), and passed under the Admiral's stern, which was the winning post, good four miles ahead of Frolic, which was 2nd; Tweed, 3rd; Helena, 4th: thus beating them four miles in little more than an hour and half, on a wind. The breeze was very strong; as much as ever we could carry single reefs and topgallant sails, on a wind. The brig stood up beautifully to her canvas, and every spar stood well. I am sailing her 1 foot 6 by the stern. She works like a top, and will do anything but speak.

"I forgot to mention that Racer, having carried away her jib-

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* Frolic, 16, built 1842, by Captain Hendry.
† Tweed, 18, built 1823.
‡ Helena, 16, by Sir W. Symonds.
§ St. Vincent was flagship of Admiral Sir C. Napier.
‖ Racer, 12, by Sir W. Symonds.

boom, directly she hauled her wind, was put quite out of the race. As we passed under the Admiral's stern, he hailed, 'Very well done, Pilot!' I trust that the Pilot will go on as favourably as she has begun; she has certainly done beautifully as yet. I am much distressed not to see Helena do better, and cannot understand it. Siren * used to fly. We sail to-morrow for Plymouth, and are to remain there three days.

"Believe me, in haste, my dear Sir William, &c.,

"E. M. LYONS."

[The late Captain E. M. Lyons died 1855, of a wound, in the Crimea.]

"Sir W. Symonds."

No. 186. *From the same.*

"H.M.S. Pilot, Cork, September 18th, 1848.

"MY DEAR SIR WILLIAM,

"We start, to-day, for the East Indies, keeping company with Frolic (who goes to the Mediterranean), as far as our courses lay together, to have further trials.

"Our last cruise has proved, beyond dispute, the superiority of Pilot, on a wind, over Frolic, and also in the very short trials, off the wind, with moderate or fresh breezes. In light winds a-beam, Frolic beats, and in light winds aft, she has a *very trifling* superiority.

"Pilot has behaved beautifully; easy, fast, working like a cutter, and not straining a rope-yarn, although we had a swell the whole time, and three days' gale of wind, in which, unluckily, from a thick fog, the whole squadron parted company. We have never had a trial with less sail than single-reefed topsails and topgallant sails, and never on a wind, with a good breeze and smooth water; so that our best qualities have had no chance of being shown. I foresaw that they would try and pick a hole in our stowage; and, therefore, stated that we stowed 5 months' provisions and 90 days' bread under hatches, which we have now on board for 130 men. The Frolic, of 520 tons, has only exactly the same also for 130 men!

"So much for your ships not stowing. The Admiral says, 'that Frolic has no bins on her lower deck,' to which I answered, 'that our men had ample accommodation.' As far as I can judge, he will report that Frolic is the best man-of-war; he cannot say she sails as well. Now, in small vessels, above all

* Captain Lyons had been First-Lieutenant of Siren.

others, it is madness to *sacrifice sailing to some fancied advantage*, such as not having bins on the lower deck. The Pilot sails admirably, carries her guns with perfect ease, has ample accommodation for men and officers, ample stowage, and would work through the eye of a needle; what more do you want in a man-of-war? Those who think Frolic a better man-of-war, would sing a very different song had they their choice, as to which they would be on board of, in war, with an enemy's squadron in chase of them. The Frolic sails very well, and why? because she has copied your beam; but, for want of your lines, she cannot look at Pilot. Of Helena I hate to speak: it makes one's heart bleed to see her so shamefully mismanaged; however, fortunately, it is perfectly notorious; she was inspected yesterday and found in such a disgraceful state, that I understand Captain —— is to be superseded. All I speak to in the squadron are of the same opinion, that Pilot's sailing is very superior to Frolic's and Helena's; but that Helena, properly managed, would beat even Pilot. Helena was sailed *one foot* out of three, and they won't take the trouble to get their provisions, at least a proper quantity, stowed; it is far too bad.

"I shall write you the result of our last trial with Frolic, and also any we may have on our station worth noticing. I hope you will have been pleased with Pilot's success; and in conclusion, pray believe, my dear Sir William, how truly grateful I am to you for getting her for me, and that I shall always continue to take the same interest in her sailing, and strain every nerve to prove myself worthy of your kindness. I have written Duke.*

"Yours most faithfully and obliged,

"E. M. LYONS."

"Sir W. Symonds."

No. 187. *From the same.*

"H.M.S. Pilot, September 19th, 1848.

"MY DEAR SIR WILLIAM,

"Our trials, after leaving Cork, have I think been very satisfactory. They have been all off the wind, as I was not justified in going so much out of our way as to try on a wind; besides, there can be no doubt whatever of the Pilot's immense superiority on that point.

"Running in the Bay of Biscay, with the wind quarterly, under single-reefed topsails, topgallant sails, courses, jib and

* See p. 379.

inner jib (set close in), as much sail as the spars could bear, and going 11, 11½, and at one time 12 knots, with a heavy sea, the Pilot could very nearly spare the Frolic both courses.

"As the wind and sea increased, so did Pilot's superiority; a ship on a wind would have been reduced to close-reefed topsails, and there was a Bay-of-Biscay sea on, in proportion. Pilot dry, easy, and steering like a boat. I was in love with her. In moderate breezes, off the wind, we also beat the Frolic, but not much in light winds; off the wind, she beat us very much. On the whole, I think you will be pleased with the result, which is all in Pilot's favour, although not on her favourite point of sailing.

"I have sent the Duke a copy of my report to Sir C. Napier, and I would also send you one had I time, but I dare say his Grace will send it you. It is exactly what I think, without giving Pilot more or less than her due. She does not want more to be given her, being all but perfection, in every respect; or I may say quite perfection, for I don't know where there is a flaw.

"Believe me, my dear Sir William, always &c.,

"E. M. LYONS."

"Sir W. Symonds."

No. 188. *From Rear-Admiral Sir C. Napier.*

"St. Vincent, Spithead, 21st Octoher, 1848.

"SIR,

"Herewith, I have the honour to transmit their Lordships, Commander Lyons' report of the result of the trials of sailing between the Pilot and Frolic, whilst they were in company, after leaving Cork to proceed to their respective stations.

"I have the honour to be, Sir,

"Your most obedient humble servant,

"CHAS. NAPIER, Rear-Admiral."

[Now Vice-Admiral Sir Charles Napier.]

"The Secretary of the Admiralty."

[*Enclosure.*] *From Commander E. M. Lyons, R.N.*

"H.M.S. Pilot, Madeira, 20th Septembcr, 1848.

"SIR,

"I have the honour to inform you that I parted company with H.M. Sloop Frolic on the 14th instant, in 40° 16′ N. latitude, 13° 29′ W. longitude; at which time, there was too

much sea to communicate without risk. I therefore telegraphed to Commander Vansittart, 'Write to Admiral that there is a risk in communicating, and that I report Pilot very superior in strong breezes, and Frolic in light; and that I shall report from Madeira.'

"Commander Vansittart answered, 'My opinion is, that Frolic is very superior in moderate breezes, and Pilot in strong.'*

"I beg to state, that after leaving Cork, the wind only admitted of our trying rate of sailing off the wind, from a-beam to right aft: under these circumstances, in strong or fresh breezes, the Pilot was so superior as to admit of no comparison; in moderate breezes the Pilot had a trifling superiority, but in light breezes the Frolic a great superiority.

"The Pilot's superiority increased in proportion to the wind and sea, so that when running under single-reefed topsails, topgallant sails, courses, and jib, with the wind on the quarter, and as much sail as the spars could bear, going 11 and 11½, and at one time 12 knots, with a heavy sea running, the Pilot could very nearly spare the Frolic both courses; and in the morning, to let her close, we were obliged to shorten all sail, and lower our topsails on the cap. During a great part of this time, a ship close hauled would have been reduced to close-reefed topsails.

"I beg leave to observe, that running in strong winds with a sea, and under a heavy press of sail, the Pilot is remarkakly dry and easy, steering with the greatest ease and nicety.

"Off the wind, in light winds, the Frolic sails much faster than the Pilot. All the above remarks only refer to sailing off the wind.

"On a wind, I consider the Pilot very superior to the Frolic, under every possible circumstance, except a light wind combined with a heavy head swell, when she, the Frolic, has trifling advantage.

"Off the wind, I consider the Pilot very superior to the Frolic, in strong winds; rather superior in moderate breezes; and much inferior in light winds.

"I beg, in conclusion, to state that, in my opinion, the Pilot's superiority over the Frolic increases in all points of sailing with the wind and sea; and that in strong breezes, with a sea either on a wind or off the wind, it is so great as to admit of no comparison.

"The Pilot on leaving Cork, had five months' provisions, ninety days' bread, and twelve months' stores. She appears to me,

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* The Frolic had larger masts and sails, in proportion to the Pilot.

to be a most efficient man-of-war, very stiff, steering well, with good accommodations for officers and men, extremely fast, so easy as never to strain a rope-yarn, and carries her armament with perfect ease.

"I have the honour to be, Sir,

"Your most obedient humble servant,

"E. M. LYONS, Commander."

"Rear-Admiral Sir Charles Napier, Kt., K.C.B.
Commander-in-Chief, &c., &c., &c."

H.M.B. FANTÔME, 12 *guns*.

Built, 1839, at Chatham. Tonnage, 483.

No. 189. *From Captain E. H. Butterfield, R.N.*

"H.M.S. Fantôme, Nov. 26, 1841.

"MY DEAR SIR WILLIAM,

"The Fantôme arriving here to refit, after seven months' cruise off the coast of Angola, it is with pleasure I can inform you she has proved herself everything one can wish; and I think we are very fortunate in having captured *sixteen* slavers, and 1340 slaves. On the 1st May, 1841, I captured the Josephine, with 290 slaves on board, after twenty-four hours' chase, and a run of 241 miles. She was a brigantine, with a maintopsail, of 150 tons, and said to be the fastest vessel out of the Havannah. She had been cleared out of Whydah by Lynx and Dolphin, and subsequently by Wolverene and Cygnet, but very much outsailed them. I was on my way from Ascension to the Congo. After having left the former place two days, we saw the vessel at half-past 7 A.M., three points on the weather-bow, hauling her wind from us. The Fantôme had on board six months' provisions, and I feared trying on a wind.

"The slaver, manœuvring to find on what point I wished to chase, bore up 3 points, which I immediately did also. He then hauled up to 2 points, free; we could see his fore-yard from the quarter-boat, and were under double-reefed topsails. I immediately shook out all reefs, set fore and maintop, with studding-sails and main-royal flying-jib, and went 11 knots. I had only a second jib bent, as I split my jib, the day previous, into ribbands; and had only canvas on board to make another in lieu

of the one I returned at Ascension, there being none in store; so I may say I had no jib during the chase. At 4 P.M., the slaver cut away his anchors, threw overboard his long gun, chain-cables, boat, took his wedges out, and sawed through the gunwale. At sunset we could just see his main-boom. At dark, I luckily caught him in my large day-glass (there being fortunately a moon), fancying we were not near him. At 8 P.M., I knocked down my cabin bulkhead, and cleared the after bread-room, putting all the bread into the fore part of the gun-room, and cleared out all the store-room and side bins. The guns were all squared and run in, as soon as we saw him.

"At 1 A.M., took in studding-sails and main-royal, and carried through a tremendous squall of wind and rain,—a thing I should never have attempted in any other built vessel; and gallantly she went through it. The slaver lost all his studding-sails, booms, and flying-jib boom, and was very nearly lost; had to let fly everything. We lost sight of him for about half an hour.

"I set all studding-sails again in half an hour, and found we had neared him very much. At 3 A.M., the moon went down. At 3·30, he bore up 2 points more, which I very fortunately saw him do, and continued in this course till daylight, when we were within gunshot. He lost sight of us when the moon went down, and steered for a dark bank; did not see us again until I sent a shot through his foresail. He stood nine or ten before he hove-to. I was rounding-to, to give him a broadside, when they all ran below. He was saying all day it was the Waterwitch, as he fancied nothing could take him but her. I doubt very much, under the circumstances, that she could do so; although I believe she cannot be better sailed than under her present commander, Lieutenant Watson. I thought we overpowered him, and it would have taken me forty-eight hours to have taken him in light airs.

"We have not had a fair trial with Waterwitch: unfortunately when in company, we have never had any wind, and I have been always full of provisions, or nothing in. The case mentioned in the paper, of her having boarded a vessel first, is nothing to boast of. The chase began at 8 A.M., the vessel on our weather beam. I towed my pinnace until 10·30; and when we tacked, the Waterwitch was about a mile astern, or rather on the weather quarter. We came up from E.S.E. to S. by W., therefore giving the Waterwitch a great advantage; and by chronometer, at 4 P.M., she boarded the vessel fourteen minutes before us. The Brisk was lower-yards down, before we came up, upwards of an hour going 4 knots, Waterwitch having held her own. I firmly believe Fantôme is fully equal to Waterwitch on a wind, and cer-

tainly superior off. On one occasion we chased together with lower studding-sails, and neared Waterwitch a couple of miles in four miles; and on another occasion, going 2 knots dead before it, under all plain sail, from 9 A.M. until 3 P.M., we beat four miles. The Waterwitch has the Lily's topsail yard; the topsails are quite square; her topgallant sails longer than mine, and her royals in proportion, giving her a great advantage on this station. She has no hammocks or nettings; her spare anchors are ashore; no quarter-boats. Could the two vessels be sailed on equal terms, I am quite certain Fantôme would be found quite her equal, if not superior. I sail to-day, for six months' cruise, again off Angola, when I very much fear the Fantôme will have to go home, for her copper is in such a state that I have been obliged to put on twenty-four sheets as low as I could reach.

"E. BUTTERFIELD."

"Sir W. Symonds."

H.M.S. STROMBOLI, 280 *h. p.*

Built, 1839, at Portsmouth. Tonnage, 967.

No. 190. *From Commander W. J. Williams, RN.*

"H.M.St. Stromboli, at Sea,
"off Galita Isle, Sept. 16, 1840.

"MY DEAR SIR WILLIAM,

"You will be glad to hear that the Stromboli has exceeded the most sanguine expectations which I could have formed of her. Her speed in smooth water, and when drawing aft 15 ft., and forward 14 ft., is 12 knots; this, with 295 marines, in heavy marching order. I hope to get 13 knots out of her as we lighten-to, aft 13 ft. 9 in., forward 12 ft. 3 in., which I conceive to be her best trim. We steamed 7 knots against a heavy sea and gale, which brought H.M.S. Inconstant (then in sight of our smoke) to close-reefed fore and main topsails, and mizen-topsail furled. We arrived at Gibraltar in six days, exclusive of ten hours hove-to, after making the land overnight. When steaming against the gale, the ship pitched remarkably easy, although necessarily she was rather wet forward, but nothing to speak of.

"Since leaving Gibraltar, we have had a fresh gale and heavy sea right aft. She scudded well, and rolled easy, not exceed-

ing 7°. The engines do the greatest credit to Mr. Napier, and are in good order; the only deficiency is Maudslay's brine-pump for the boiler, which it is *most important* that *every* man-of-war steamer should be fitted with. The coals we took in at Portsmouth were shameful. We consume exactly *one ton* a day less of the coals which we took in at Gibraltar; a daily saving of 30*s.*! Had the Portsmouth coals been good, we might have come direct to Malta, a thing which should always be done. It is important that a regular class of men should be established as *stokers* for men-of-war. The *difference of consumption* in fuel is enormous between *good and bad stoking*, and the due regulation of the fires is a matter that requires much practice and attention, with a certain degree of intelligence in the men themselves.

"We carry the additional two 32-pounders with the greatest ease; and I conceive that their weight upon the upper deck is an advantage, as a counterbalance to the weight which is always so low in steamers. We have got our 300 marines out in very good style, the proof being, that the only men belonging to their party who are sick, are from diseases contracted on shore, before embarking; the rest are in a very good state, for any service.

"I still think that if the alteration which was made in the fore orlop was extended to the after one, it would still more increase the efficiency of steamers for the conveyance of troops. My time has been much occupied in disciplining and organising, as we are so lately commissioned; but as I get more leisure, I hope you will allow me to communicate with you, from time to time,

"Remaining ever, my dear Sir William,

"Yours very truly,

"W. J. WILLIAMS." *

[Now Captain W. J. Williams, of 1841.]

"Sir William Symonds."

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* Captain Williams was at the taking of Sidon, &c., 1840.

H.M. St. F. CYCLOPS, 320 *h. p.*

Built 1839, at Pembroke. Tonnage, 1191.

No. 191. *Extract of a Report on the Sailing Qualities of H. M. St. V. Cyclops.*

"31st Dec. 1841.

"No opportunity having offered of forwarding this report, advantage is taken of the circumstance to add some remarks on the ship's capacity, as ascertained, for the first time, during a passage from Athens to Malta under sail. The Cyclops left Athens with not quite twenty-four hours' coals on board, and only ten days' provisions and water. Boilers remaining full, her draught of water was forward, 14 ft. 1 in.; aft, 14 ft. 3 in.

"During two days' contention against fresh gales and strong squalls, her performance was most admirable, and continued so, under all circumstances, during the passage; her greatest inclination being 11½ degrees.

"In justice, therefore, it may be said, that as a steam-vessel of war, this ship is very near perfection, as, whether with or without coals, she is able to make any passage under sail alone satisfactorily and expeditiously,

"HORATIO T. AUSTIN, Captain."*

H.M.S. QUEEN, 110 *guns.*

Built, 1839, at Portsmouth. Tonnage, 3104.

No. 192. *From Admiral Sir E. W. Owen.*

"H.M.S. Queen, at Malta, 3rd April, 1842.

"SIR,

"With reference to my letter No. 16, of the 28th ult., reporting my having passed Gibraltar on that day, and left the Formidable to pursue the orders which my Lords Commissioners of the Admiralty had directed me to give her:—

"I have the honour to state that the westerly wind continuing, I arrived at this place yesterday, and was towed into

* Commanded the Arctic Expedition of 1851, in search of Sir J. Franklin. Now Captain-Superintendent of Deptford Dockyard.

harbour by H.M.S. Devastation; thus making the whole passage in about twelve days, without accident or disaster, other than the loss of a fore-topmast studding-sail boom.

"We passed Algiers, on the 30th March, at some distance; but ascertained there were no ships of war at that time in the bay or harbour. The Queen continued as lively and as manageable as I before reported. In making this island, yesterday morning, the wind had freshened greatly, and the ship was pressed with sail; her greatest heel was 7 degrees, the lower deck-ports being then reported too low to be kept open without risk of shipping water. Her draught of water, taken since her arrival, as compared with that at the time of sailing, appears thus:—at sailing, 24 feet 5 inches forward; 25 feet 6 inches aft; height of midship port, 6 feet 2 inches:—on arrival at Malta, 24 feet 3 inches forward; 25 feet aft; height of midship port, 6 feet 5½ inches.

"The bridles, however, had been taken in, and all the anchors were at the bows. There was still the same defect of steerage, varying with different circumstances, but requiring constant watchfulness, and generally a greater scope of helm than was desirable. She was tacked once to gain the anchorage, and performed most admirably. I therefore venture, under all the circumstances I have stated, to report her to their Lordships as a perfect man-of-war. There has been no appearance of straining or defect in any part of her, with the exception of the waterway amidships on the lower deck, where the oakum had slightly raised above the seam, but to a degree and an extent so inconsiderable as not to require notice in the defects.

"Her immersion is certainly greater than was calculated on; but whether it would be desirable to diminish the quantity of iron ballast, now said to be 100 tons, is yet, I think, a question for future experience. The quantity does not seem great for so large a body; but with the uniformity of armament, and the use on every deck of 32-pounder shot, a great addition has been made to the deadweight carried by ships of war in general. The subject shall have every attention whenever we proceed to sea; and

"I have the honour to remain,
"&c., &c., &c.
"E. W. C. R. Owen,
"Vice-Admiral."

"The Right Hon. Sidney Herbert, M.P.
&c., &c., &c."

No. 193. *From Mr. W. Miller, R.N., Master of the Fleet.*

"H.M.S. Queen, Malta.

"DEAR SIR WILLIAM,

"Our passage from Spithead to this harbour, in 12 days, has been very satisfactory to us all, particularly to me, from knowing the very unfavourable circumstances as to trim and immersion under which we sailed. You would perceive, from the No. 211 sent to Dockyard, that the ship's mid-port was nearly 5 inches deeper than had been stated; and the difference in the real and proposed draughts nearly 7 inches. I went over the calculations of weights with Giles and the foreman afloat, but could find no material omissions, except the tare of the tanks (40 tons). Under circumstances so detrimental to sailing and steering, I expected the Formidable* would show much advantage; but in a strong breeze a-beam, with sufficient sail, we held our own, with occasional advantage; yet under low canvas, going with the wind aft, the Formidable had a slight advantage, amounting, in 8 hours, to at most 3 miles. During the passage, we moved the shot that had been brought aft from the coal-hold locker, back again; notwithstanding which, we found her a foot by the stern.

"On our arrival at the buoy, from a calculation I have made of the weight removed by consumption of provisions, &c., I find, that during the 12 days, 118 tons 13 cwt. was removed from before the centre, and only 16 tons, 10 cwt. 3 qrs. 14 lbs. from abaft; by which I perceive it will be equally necessary to move the weights from abaft, as our consumption goes on, as it was in the Vanguard, with respect to raking masts and all minor points of moving weights for trimming, &c.

"The Captain and Master are disposed to attend to my suggestions; but the Admiral required the whole history of the removal of the ballast from the coal-hold to the after-hold; and made me state, in writing, that I had been consulted by you in the stowage of the ship; and that after the shot-locker was found necessary in the coal-hold, I had constantly suggested to the Master Shipwright, and at different times to you, that this ballast, being displaced by an additional weight, should not be stowed in the after-hold, but landed at once; feeling confident that it would be detrimental to the trim of the ship, and unnecessary as to her stability. On the faith of this statement, he has ordered it to be landed, but to the Captain's request to part with 60 tons of water, he has given a decided negative; and I

* Formidable 84, built 1825, as the French Canopus.

fear, until he is satisfied of her superiority in stability over all other ships, he will not consent to lighten the ship by that means. We were all delighted with her easiness in a seaway, and there can be no doubt that she is the easiest ship I have ever been in, large or small. The Admiral soon noticed this, and I believe has made a special report, part of which he showed me.

"The only drawback is a difficulty in steering, which retarded her sailing very much. The Admiral examined minutely the tiller, the lead of the ropes, chocks, sheaves, &c. There was some discussion on the length of the tiller, the great increase in the barrel of the wheel, and consequent loss of purchase; but I am of opinion, that the difficulty is occasioned by the ship being too much immersed and out of trim; and mentioned this to the Captain and Admiral. On inquiry here, among my brother officers, I find that a similar difficulty had been experienced in some of the ships here, with the increased barrel.

"Our midport, since we have got rid of supernumeraries, ballast, &c., &c., and being complete in water (466 tons), and provisions for 4 months, is 6 feet 5½ inches; draught, forward, 24 feet 6 inches; aft, 24 feet 9 inches; which, allowing 2 inches for the moorings, will bring her close to your proposed trim. It is customary here for ships to leave their third suit of sails, and other extra stores not in common use. I have urged this on the Captain, putting him in mind that we have a hemp cable above our number. He is perfectly agreeable to act on those suggestions, but despairs of gaining the higher authority for that purpose. I shall endeavour to make provision for better steerage, by lessening the friction in the chocks and leads of tiller ropes. It appeared that the tiller was acted on easily by hand below; I am, therefore, induced to think we may find something wrong in the sheaves, in the chocks, or in the axle of the wheel.

"I am delighted to find that my old ship, Vanguard, has maintained her high character on all occasions when in company with the other ships of the fleet, notwithstanding the reports that were so freely circulated in England about her. I have heard nothing about our summer cruise, after which we shall be able to give an opinion of her qualities, in comparison with those of the ships of the fleet. Meanwhile, there would be time for you to favour me with any remarks you may have to make on the scanty communication I have been able to afford you. I beg to be remembered to my old messmate, Captain Symonds, and remain, dear Sir William,

"Yours very faithfully,

"W. MILLER."

"The Admiral has just shown me Sir C. Sullivan's report,

which is, on the whole, very fair. I except that part where he says, the Formidable had a constant advantage.

"W. M."

"Captain Sir Wm. Symonds, R.N."

No 194. *Extract of a Letter from the same, to Admiral Bouverie.*

"H.M.S. Queen, Malta, 18th April, 1842.

"DEAR SIR,

"As I know you take an interest in the qualities of our new-construction ship, an account of our very short passage may afford you some gratification. You would perceive, by the No. 211, forwarded to your office, that the Queen was increased 5 inches more than was calculated on, and was 6 inches out of the estimated trim. Under these circumstances, I felt certain that the usual consequences, hardness of steerage, and sluggishness under low sail, must give the Formidable a great advantage. However, with a strong breeze a-beam, under sufficient sail, the Queen held her own with occasional advantage; but as the breeze failed and drew aft, the Formidable's advantage was shown to be less than I had expected, amounting to between 2 and 3 miles in 8 hours. As far as we could judge, the Queen's stability was very superior to the Formidable's; and she is certainly the easiest ship in a seaway that I have ever been in, large or small. This was soon noticed by the Captain and Admiral.

"We made the island in a strong breeze from S.W., right out of the harbour, and in attempting to work into Bighi Bay, under treble-reefed topsails, split the jib. From some awkwardness in working, being a first attempt, I was obliged to anchor close to the outer buoy, and was shortly after towed in by the Devastation, which will account for the frontispiece, which is tolerably correct. I proposed to the Captain and Admiral that the ship should be lightened first, by landing 20 tons of iron ballast from the after-hold, which had been moved from the coal-hole when the additional shot-locker was built there.

"The Admiral required me to state to him, in writing, that I had been appointed by you to stow and rig the Queen, from having some experience in a ship of a similar construction; also that I had been consulted by Sir William Symonds respecting the quantity and stowage of the ballast; and that when this said 20 tons was displaced, I had suggested to the builder and Sir William Symonds, that it ought not to be stowed in the after-hold, but landed; being convinced that it would prove detrimental

to the trim of the ship, and was not necessary to her stability. On the faith of this statement, the Admiral has permitted the ballast to be landed, but has negatived the proposal made through the Captain about the water.

"I had some conversation with Sir W. Symonds on board, at Spithead, relative to this ballast; and he desired me, when we arrived at Malta, to make use of his name to the Captain, with a view of getting rid of it, and to reduce our water to the same quantity carried to sea by the other three-decked ships that had been employed on this station, viz. Britannia, Howe, St. Vincent, and Caledonia. This would remove 60 tons weight, which would bring the ship's immersion to the Surveyor's calculation. Our ship's company behaved exceedingly well coming out, and I am convinced there is the making of a prime ship's company,—stout, young, and willing; but where there have been so many Commanders and First-Lieutenants removed by promotion, the necessary drill and exercise are retarded.

	ft.	in.
Draught of water, forward - - - -	24	6
Ditto aft - - - - -	24	9
Ditto midship port - - -	6	5½

Complete with 4 months' provisions and 466 tons of water.

"WM. MILLER."

"Admiral Hon. D. P. Bouverie."

No. 195. *From Vice-Admiral Sir E. W. Owen.*

"H.M.S. Queen, at Sea, off Malta, 21st May, 1842.

"SIR,

"With reference to my letter of the 19th instant, explaining for the information of the Right Honourable the Lords Commissioners of the Admiralty the various reasons which concurred in leading me to put to sea, with the portion of H.M. Fleet, then lying at Valetta, and rejoining and retailing therein the several transactions which had engaged my notice, and the result so far as I had ascertained then;

"I have now the honour to acquaint you, for their Lordships' further information, that the wind being favourable yesterday, I put to sea at daylight, with the ships named below, viz. Queen, Impregnable, Vanguard, Cambridge, Calcutta, Vesuvius, and Devastation, leaving the Howe and Thunderer to fill up their water and supplies.

"In the afternoon I was joined by those ships, and the wind being then favourable, and, again this day, for sailing in order, the fleet has practised some easy movements with good promise.

In two days' sailing, with the fine weather we have had, I find a great superiority in the Vanguard and the Queen; the latter has some little preference, not more perhaps than may arise from one ship leading and the other following.

"I have the honour to be,
&c., &c., &c.,
"E. W. C. R. OWEN,
"Vice-Admiral."

"The Hon. Sidney Herbert, M.P.,
"Secretary of the Admiralty."

No. 196. *From the same.*

"H.M.S. Queen, Malta, 5th June, 1842.

"SIR,

"The various reports which reached me, and of which their Lordships will find much detail in letters, which have been received from Malta, while at sea, and as contained in my several reports to you, No. 140 to 151 inclusive, have prepared me for the necessity of detaching some of the squadron; and induced me to send in the Thunderer and Calcutta, on the 1st instant, to complete their water and provisions, and to hold themselves in readiness to sail again; and further, to bring in the squadron, which I did yesterday, for the same purpose, ordering them to complete without delay, and hold themselves in instant readiness for whatever may happen.

"I have called for reports upon the qualities of the several ships from their respective captains, and hope to have them for enclosures in this letter. In the mean time, I may say, that so far as my own observation went, *no one* of the *ships, except the* Vanguard, could *compete* with H.M.S. Queen; whether in easiness of motion, in working, or in sailing. She does not so well answer under low sail, but bears pressing with her canvas, and answers *to it by her power.*

"In a head sea we had, at E. to S.E., following the gale, the ships were all alike ungovernable; but I can have no difficulty in pronouncing the Queen *a ship superior to all three-deckers,* and to *most of those with two decks.* Her draught of water taken, when she came into port, being then 100 tons of water short, is —

	feet.	inches.
Forward - - -	24	3
Aft - - - -	24	6
Bow Port - - -	8	3
After Port - - -	8	1
Midship Port - -	6	8

"I send herewith, for their Lordships' full information, my Journal of the late cruise, the reports of each days' exercise, and a report of the sailing qualities of my own flag-ship, the Queen; together with reports from the Captains of the qualities of their respective ships, and their *observations on the* Queen in reference thereto; in doing which,

"I have the honour to remain,
&c., &c., &c.,
"E. W. C. R. OWEN,
"Vice-Admiral."

"The Hon. Sidney Herbert, M.P.,
&c., &c., &c."

No. 197. *From Capt. G. F. Rich, R.N.*

"H.M.S. Calcutta, Malta, 6th June, 1842.

"SIR,

"In obedience to your order of the 4th instant, to report to you the observations I have been enabled to make upon the sailing and other qualities of H.M.S. Calcutta*, I have the honour to state that, in the circumstances of weather and sail, under which the ship was placed during the late cruise, it becomes a matter of difficulty to give a decided opinion; for the greater part of the time the wind was so light and baffling as to afford but little room for trial.

"During the continuance of the gale on Thursday, the 26th May last, and with a strong breeze on Friday, the 27th, the ship proved as easy in the sea and under canvas as any ship I have ever known; nor did she appear to be deficient to other ships of her class in sailing: her weatherly qualities also are equally good. She had hitherto been considered a weak and crank ship; but her stability has been improved by the alteration lately made in the stowage of her ballast. As regards her working, she may probably be found more handy by a different trim and alteration of the standing of her masts; the mizenmast appearing to be too far forward, and the ship carrying a slack helm.

"With respect to the comparison between this ship and the Queen, there can be no doubt, in my opinion, as to the *superiority of the latter* in every point, viz. in sailing, working, stability, and weatherly qualities.

"I have the honour to be, &c., &c.,
"GEORGE FREDERICK RICH, Captain."
[Now Rear-Admiral Rich.]

"Vice-Admiral Sir Edward Owen,
&c., &c., &c."

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* Calcutta, 84, built 1831, by Sir R. Seppings.

No. 198. *From Acting-Captain H. R. Henry, R.N.*

"H.M.S. Queen, Malta, June 17th, 1842.

"MY DEAR SYMONDS,

"You will be astonished to hear that I am in acting command of the Queen, of which I am truly proud; especially since her last cruise, when she proved herself so very superior to all the rest of the squadron,—even Vanguard. We had no regular trial of sailing; but, in order of sailing, the comparative quantity of canvas one is obliged to carry is a pretty clear proof of what ships can do. One thing is certain, which is, that as we lightened we improved; which leads me to think that if 30 tons more ballast were taken out of her, she would do even better. We had a gale during our cruise, and you have no idea how easy she is in both pitching and rolling. She works just like the little Columbine* in moderate weather. I mean by that, her power of crawling up to windward athwart the hawses of the ships, by merely twisting the yards well up, and treating her like a child with the helm in point of delicacy.

"Sir Edward Owen is very proud of her; but his mind is more taken up with guns, powder, and shot, just now, than trial of sailing. He is so desirous of having his ship ready for action, that we work at the guns day and night.

"I am in daily expectation of a successor from England; as Captain Rich is going home in command of the Calcutta, if, on the arrival of the Indus, Sir Samuel Roberts is not well enough to take command of his ship.

"The man who gets this craft must be sound in wind and limb, and be willing to work; for the Admiral is never off his legs, and thinks of nothing but his ship.

"We are well officered, but have a bad ship's company, with no life in them; they promise, however, to be good at their guns.

"My old Devastation, with friend Lowe, gets on splendidly, and is really in good order: nothing here can hold a candle to her in steaming.

"I need hardly tell you how deeply I felt for you and yours, on the late melancholy news from New Zealand. Pray remember me kindly to Sir William and Lady Symonds; and when you have a spare moment, write me a line, and tell me what chance you have of a ship. Old Miller, who was in the Britannia, is here as Master of the Fleet. He desires to be re-

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* Capt. Henry had been Mate in Columbine.

membered to you. I never saw a man take such pride in his ship as he does.

"Believe me, &c.,
"H. R. HENRY."
[The late Capt. Henry.]

"Capt. T. M. C. Symonds, R.N."

No. 199. *From Mr. W. Miller, R.N., Master of the Fleet.*

"H.M.S. Queen, Malta, 20th. June, 1842.

"DEAR SIR WILLIAM,

"I have great pleasure in reporting on the performance of our gallant ship, after 15 days' cruise in the Channel of Malta. After getting rid of the 20 tons of ballast, and about 30 tons of lumber and supernumeraries, we sailed on the 20th ultimo, in the following trim, having slipped moorings and fast to buoy by hawser:—draught, forward, 24 feet 2½ inches; aft, 25 feet; bow port, 8 feet 3½ inches; mid, 6 feet 5 inches; stern, 7 feet 6 inches. The following ships composed our squadron, viz., Howe, Impregnable, Vanguard, Thunderer, Calcutta, and Cambridge*: the last three had got their names up as clippers.

"In standing off and on, under whole topsails and topgallant sails, no courses set, a royal breeze,—we were surprised, and much pleased, to find that the squadron were obliged, though very loath, to pack on, first courses, and then royals; and even my old flame, the Vanguard, could spare us nothing. Next day, the Howe and Thunderer having joined, we stood to the southward, about a point free, with a moderate breeze, under single reefs and topgallant sails, jib and spanker, sparing all the clippers fore-course and royals, except Vanguard. The Thunderer set her foresail occasionally: the three-deckers under all sail, staysails and studding-sails.

"We have had a great deal of gun exercise, but I regret to say, no stated trial of sailing, though several commanding breezes offered. This gives a loophole to the ships, which they will, no doubt, avail themselves of; but the candid and liberal of the squadron affirm, that the Queen is second to none, in sailing qualities, except her elder sister, which, in my opinion, looks better, sails better, and is certainly better handled than in my time. I also think that Sir David Dunn and his officers are not saying too much when they state, that when the Queen carries

* Howe, 120, built 1815; Impregnable, 104, built 1810, by Sir W. Rule; Thunderer, 84, built 1831, as the French Canopus; Calcutta, 84, built 1831, by Sir R. Seppings; Cambridge, 78, built 1815, as the Danish Christian VII.

a proper proportion of sail, well trimmed, and as carefully steered, the Vanguard has enough to do in holding her own. We improved towards the end of the cruise. I kept a book, in which I inserted the daily consumption of provisions, fuel, water, shot, powder, sand, holystones, stoves, and daily estimated consumption of necessaries, provisions, &c., for cabin, ward-room, gun-room, and cockpit messes, before and abaft the centre, taking a proportion of 5 to 1 from abaft. On our return to port, and fast by hawser to moving buoy, the total weight removed during the cruise was 147½ tons; her draught was, forward, 24 feet; aft, 24 feet 7 inches; midship port, 6 feet 9 inches; showing that the proportion I had assumed was not sufficient to bring her to her trim, which, I am convinced is somewhere about 5 or 6 inches by the stern, decreasing as lightened. She seldom carried a good helm during the cruise, but a decidedly slack one.

"Under low canvas with any sea, her great stability has been noticed by the whole squadron, and admitted by the Admiral. The Vanguards admit her superiority in this respect. From these facts, I am fairly convinced that she is still from 2 to 3 inches too much immersed, which could be easily and safely remedied, would our gallant chief but consent; but I am afraid he is so thoroughly satisfied with her performance, in comparison with the other ships, that there is little hope for us on this head. His energies are entirely turned to her efficiency in gunnery, We are hard at it every day, and a few cruises would make me ambitious of bringing the Queen alongside her stoutest enemy.

"The Vanguard has frequently elicited his praise. The steady way in which she is kept in station, her staying under close-reefed topsails in a seaway, when no other ship in the squadron could do it, were noticed by him, and he is by no means prodigal of his praise; but I am firmly of opinion, that if the Queen were brought to a 6 feet 8 inches midship port, and handled properly, no ship at present in commission could touch her. We are sadly off in our executions; little experience and less energy. The Admiral steps in occasionally and does her justice. Her steering is much improved by the small alterations we have been able to make. The Admiral showed me the plan of fitting Agincourt's tiller with Rapson's slide; it would be a great boon to us. I have not yet got the courses altered on the plan I proposed to the Admiral, that is, stepping 4 feet in at the bellyband, and paring the clews, to take away about half the hollow of the foot.

"We have had only one breeze, in which the easy qualities of the Queen were still more conspicuous than on the passage

from England. Under all circumstances of comparison with other ships, as to desirable qualities for a ship of war, we are supported in our opinion by the most intelligent and disinterested officers of the squadron, and I am sure you will feel gratified by the Commander-in-Chief's report.

"We expect the Indus and Formidable here soon, when I expect and hope for a six weeks' cruise, to get rid of the hot months here; and I trust I shall be able to give you a better account of Formidable than on the passage out.

"The opposition vote, with the language of the French Chambers, looks warlike. We have a great many fine, heavy ships in commission; and those on the station are in good gunnery order, and very fairly manned, ready and willing for anything that may turn up.

"I beg my best respects to Captain Symonds: I trust he is trying hard to get afloat. I am told by those who saw it, that he made the little Rover do wonders in the West Indies. We have his old shipmate* in the Rattlesnake, for our Flag Captain, at present, and a most gentlemanly good officer he is.

"I remain, &c., &c., &c.,

"WM. MILLER."

"Sir W. Symonds."

No. 200. *From Admiral Sir E. W. Owen.*

"H.M.S. Queen, Malta, 12th Sept., 1842.

"SIR,

"With reference to Sir John Barrow's letter of the 15th ultimo, enclosing a copy of a report from the Surveyor of the Navy, which recommends that H.M.S. Queen shall be lightened bodily three inches, in the manner he has pointed out, to bring her to the line on which she was constructed to sail and steer the best:—

"I have the honour to acquaint you that the 20 tons of ballast which has been referred to, were taken out from the after-hold, and landed in May last; and that the ship is at this time lighter, bodily, than when she sailed from England, to the full extent Sir William Symonds recommends; as will be seen by the following comparison of the draught of water and the height of ports as taken at that time, and at the present:—

* Captain H. R. Henry, R.N.

H.M.S. Queen's Draught of Water.

On the 16th March, when she left England.	ft.	in.	On the 9th September, at Malta.	ft.	in.
Aft	25	6	Aft	24	9
Forward	24	5	Forward	24	1
Midship Port	6	2	Midship Port	6	7½
Bow Port	8	1	Bow Port	8	4
Stern Port	7	1½	Stern Port	7	10

"The following was the draught of water when she sailed on the last cruise, on the 15th July, 1842:—

Aft	24 feet	11 inches
Forward	24 „	4 „
Midship Port	6 „	6½ „

"She was then as *manageable as any yacht*, and untouched in sailing by any ship in company, except the Rodney, which was less weatherly in proportion to her forereaching by the wind, and was left astern more than 2 miles, or one-sixth of the whole distance sailed, when we bore up to put into port. Thus, my Lords will see that the ship is now at the floatation recommended, and will, I have no doubt, maintain her reputation; her only present drawback being foul copper, which is common to all vessels lying in this harbour. I request you will report this to their Lordships, and

"I have the honour to be, &c., &c., &c.,

"E. W. C. R. Owen,

"Vice-Admiral."

"The Hon. Sidney Herbert, M.P.,
&c., &c., &c."

No. 201. *From Captain Forrest, R. N.*

"H.M.S. Impregnable, at Sea, 29th Sept. 1842.

"Sir,

"My opinion of the comparative rate of sailing of ships present is as follows:—

1. Queen. } Uncertain which.
1. Monarch. }
2. Rodney.
3. Indus.

"Impregnable, among these very capital ships, very fair.

"I have the honour to be, &c., &c., &c.,

"THOMAS FORREST."

[The late Captain T. Forrest.]

"Vice-Admiral Sir E. W. C. R. Owen, K.C.B., G.C.H., &c., &c., &c."

No. 202. *From Admiral Sir E. W. Owen.*

"H.M.S. Queen, Malta, 19th Feb., 1844.

"SIR,

"My letter, No. 55, of 22nd January, related to you, for the information of the Right Honourable the Lords Commissioners of the Admiralty, the particulars of a short cruise made by H.M.S. Queen, which sailed in company with the Vernon on the 16th January, and separated from her in bad weather.

"Captain Rich, at his return, laid before me the accompanying track chart, showing the Queen's position on the several days.

"The return of the Vernon has enabled Captain Rich to add the positions, likewise, of the Vernon on the same days; the weather having been more violent than has been known for many winters. A comparison of the tracks of the two ships seems favourable to the Queen, and especially as regards her weatherly qualities, which Captain Rich had been inclined to doubt. I beg to add my firm reliance on her good qualities in all respects, and that she is, in my opinion, a *perfect man-of-war, the finest and the best three-decker in the Service.*

"I have the honour to be, &c.,

"E. W. C. R. OWEN, Vice-Admiral."

"Hon. Sidney Herbert, M.P."

No. 203. *From the Secretary of the Admiralty.*

"Admiralty, 13th October, 1845.

"SURVEYOR OF THE NAVY,

"Herewith you will receive a copy of a letter from Rear-Admiral Sir Samuel Pym, dated the 10th instant, reporting the return of the Experimental Squadron of line-of-battle ships to Plymouth, and the result of their trial.

"By command of their Lordships,

"H. CORRY."

[Enclosure.] "St. Vincent, in Plymouth Sound, 10th October, 1845.

"SIR,

"I have the honour to forward to you, for the information of my Lords Commissioners of the Admiralty, the diagrams of the trials of sailing of Her Majesty's Squadron under my command, and other documents mentioned in the inclosed schedule. In addition to which, a good trial was commenced on the 1st instant by the Queen, Canopus, Albion, and Vanguard, in chase of the Daring, under all plain sail, and port topmast and topgallant studding-sails; but the fog, which came on three hours after, prevented the angles being taken to ascertain the exact result. The Queen, however, gained on her.

"You will also be pleased to acquaint their Lordships, that we have had some splendid trials with as heavy a press of sail as could well be carried. Once, beginning with close-reefed topsails and reefed courses, topgallant masts struck; the next, under treble-reefed topsails; and another, under double-reefed topsails; and all these, against a heavy head sea. In the latter, on the 7th instant, the day after the heaviest gale, the Rodney beat the whole fleet.

"Nothing could be more easy in all the trials than the Queen and Albion, who never appeared to strain anything; indeed all the squadron proved themselves such fine ships, as to be incapable of being disturbed by press of sail; except the St. Vincent.

"I am perfectly satisfied with the result of the trials,—that the Queen is the best ship, the Albion and Rodney next, Canopus and Vanguard much alike, Trafalgar weatherly but slow, St. Vincent* leewardly and crank.

"As the weather appeared to set in fine, and not deeming that any further trial would benefit the Service, I bore up on the 9th instant for this anchorage, which I reached with the squadron under my command this day, at 7·15 P.M.

"I beg to remark, for their Lordships' information, that all the Captains deserve the greatest credit for the seamanlike manner in which they made sail, blowing in the way it did, on the above-mentioned occasions. — I have, &c. &c.,

"S. PYM."†

[The late Admiral Sir S. Pym died 1855.]

"To the Right Hon. Henry T. L. Corry, M.P."

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* Rodney, 92, built 1832, by Sir W. Seppings. Canopus, 84, built 1796, at Toulon; captured 1798, at the battle of the Nile. Trafalgar, 120, built 1841, by Sir W. Rule. St. Vincent, 120, built 1815, by Surveyor of Navy.

† A descendant of the famous John Pym, the Commonwealth statesman.

No. 204. *From Captain Sir B. W. Walker, R.N.*

"H.M.S. Queen, in Plymouth Sound,
"15th October, 1845.

"SIR,

"In compliance with your letter of this day's date, I have the honour to enclose the sailing qualities of Her Majesty's ship under my command; and at the same time I beg to remark, that I consider the Queen to be a most magnificent man-of-war, and in every respect superior to the St. Vincent or Trafalgar, or any ship I ever served in. She is fast, and had, on the whole, a decided advantage in sailing over every other ship of the squadron. She is very stiff, very weatherly, rolls and pitches very easily, and without straining. She steers and works remarkably well. Her spacious decks are well adapted for working the guns, as well as for the comfort and health of the officers and crew. She can stow under hatches seven months' provisions of all species for her war complement, and would, if the hold was properly stowed, carry at least 550 tuns of water; and, in my humble opinion, she is the finest ship in the world.

"I have, &c.,

"B. W. WALKER, Captain."

"Rear-Admiral Sir Samuel Pym, K.C.B.,
"Commander-in-Chief of H. M. Squadron."

No. 205. *From Captain N. Lockyer, R.N.*

"H.M.S. Albion, in Plymouth Sound,
"15th October, 1845.

"SIR,

"In answer to your letter of this day's date, requesting me to report to you, for their Lordships' information, the behaviour of H.M.S. Albion, under my command during the late trial cruise, as compared with that of any ship, and with regard to the whole squadron, — I beg leave to state that the Albion's behaviour during the late trial cruise proved her to be a good sea-boat during the heavy gales; when, under a close-reefed main topsail, fore staysail, and main trysail, her motion was remarkably easy in the heavy sea that was then running; and I am fully persuaded no ship could behave better.

"In comparison with other ships, which were all near us at times, I consider her behaviour equally as good as any of them, and they all appeared to roll equally as deep, though I think she rolls rather quicker than the St. Vincent, Queen, Trafalgar,

or Rodney; this, perhaps, is owing to the want of ballast: her pitching motion is remarkably easy, and apparently less than other ships. With respect to the other ships of the squadron, I consider the Queen to be by far superior of her class, on all points, either in fine or bad weather; the Trafalgar is rather a more weatherly ship in bad weather, but no sailer, either on or off the wind; the Canopus is equally as quick in her motion as the Albion, in a seaway; she is also crank, as is the Rodney, the absence of which is a great advantage the Albion possesses over every ship in the squadron.

"I have, &c.,

"NICHOLAS LOCKYER, Captain."

[Captain Lockyer died 1847, in command of the Albion.]

"Rear-Admiral Sir Samuel Pym, K.C.B.,
"Commanding the Experimental Squadron, Plymouth."

No. 206. *From Capt. R. F. Rowley, R.N.*

"St. Vincent, — Oct. 1845.

"SIR,

"In compliance with your order, I beg to transmit the following report, for the information of the Lords Commissioners of the Admiralty, of the qualities of Her Majesty's ship under my command, as well as the observations I have carefully made of the respective qualities of the other ships, during the late trial.

"The St. Vincent is decidedly a leewardly ship in comparison with the rest of the squadron, under all circumstances, in bad weather, whether under a press of canvas or easy sail. She pitches deep but easily, never straining the rigging or opening the seams so as to require caulking. She is decidedly very crank, and on one occasion, during the late cruise, under courses, double-reefed topsails and topgallant sails, she heeled by the pendulum 19°. She steers remarkably well and works well.

"To account, in some measure, for her being so leewardly, I would observe, she has 4 inches less false keel than any ships of her class, and I should recommend her having from 6 to 9 inches more than she now has.

"In moderate weather and smooth water, I always considered she was nearly equal to the Trafalgar, as what she forereached on that ship made up for what the other gained by her weatherly qualities; but with the Queen, Albion, Rodney, and Canopus, the St. Vincent had no chance, except in very light airs. Off the wind, in all weathers, and whether under a press of canvas or in easy sail, St. Vincent is decidedly a fast ship,

though by no means so fast as Queen and Albion; but quite equal to Rodney, Canopus, and Vanguard, and infinitely superior to the Trafalgar.

"She rolls deep, but easily, and does not jerk or strain anything. I should say she rolled during the late trial quite equal to the Albion and Canopus. In very light airs, before the wind, the St. Vincent would run away from the whole squadron except the Queen. St. Vincent, under all circumstances, going free, steers remarkably well.

"My opinion of the Trafalgar is, that she is a very weatherly ship, and particularly in bad weather, but the other ships all forereached her; she stands up well under a press of sail; she appears to pitch more than the Queen, but less than St. Vincent. Off the wind, under all circumstances, either under a press of sail or easy sail, she is decidedly very slow, very inferior to all the other ships. She has the advantage of rolling less than any of the ships, Queen excepted; between these two there is very little difference in rolling; if anything, the Queen is the steadiest ship.

"The Queen always appeared to me a remarkably fine man-of-war on all points. In all moderate weathers, whether on a wind, going free, or before the wind, she had no competitor; the Albion being the next ship to her. In strong breezes and a heavy head sea, the Queen also proved herself a very fine ship, standing up remarkably well under a heavy press of sail, and appearing to pitch very easily. The difference of sailing between her, the Trafalgar, Albion, and Rodney, is best shown by the various diagrams that have been forwarded; but I cannot help remarking, that on one occasion, when the diagrams show a great advantage in the Trafalgar, the Queen at starting appeared to be beating everything, when she came up with the Vanguard, and being to leeward, was for more than one hour hampered under her lee. The Queen is certainly much stiffer under a press of sail than Trafalgar, or any of the squadron, Albion excepted. I would remark, in proof of the great ease of this ship in a heavy head sea, that upon one occasion, after a heavy gale during the night, and very strong breezes during the trial all the forenoon, the wind became moderate in the afternoon, the sea remaining, when the Queen set her royals. I feel convinced no other ship could have done the same.

"The Albion's superiority over the other two-decked ships, and particularly the Rodney, a ship of her class, consists chiefly in her being much stiffer under a heavy press of sail. In strong breezes, on a wind, I did not perceive much difference between them, except that on one occasion, when the sea was right ahead,

the Rodney beat the whole squadron, and appeared much easier than the Albion. In moderate weather and smooth water, the Albion is the fastest ship, and off the wind would always beat the Rodney. Before the wind, with a heavy swell, the Rodney would fight her lower-deck guns better, and with more safety than the Albion.

"The Vanguard was certainly very much improved from what she was during the preceding cruise, and, considering how light she was, surprisingly stiff under a press of canvas. She appeared to pitch deep and heavily during the trial in a head sea, and also rolled deeply before the wind. I could not perceive much difference between her and the Canopus on a wind, but off the wind Canopus is certainly the fastest ship. The Canopus appeared much more crank under a press of canvas than the other ships, heeling more with two reefs in her topsails than the Queen and Vanguard with one. She is not so weatherly as either Albion or Rodney; she forereaches considerably, but whether this proceeds from keeping her off the wind, it is difficult to form an opinion from another ship. Under easy sail, I should say she was a steadier ship than any of the other two-decked ships.

"I have only to add, that I have come to this conclusion upon the relative merits of the several ships, after the most careful and attentive watching during the late cruise.

"R. F. Rowley."

[The late Capt. R. F. Rowley.]

No. 207. *From Captain B. W. Walker, R. N.*

"H.M.S. Queen, Plymouth Sound, 11th Oct. 1845.

"My dear Sir William,

"We arrived here last evening very unexpectedly, and as time will not allow me to give you a full account of the cruise, I will only repeat Admiral Sir Samuel Pym's speech to me last night on board the St. Vincent, which I trust will quite set your mind at rest with respect to this noble ship. When the Admiral shook hands with me, he said, *I congratulate you on being Captain of the finest ship in the world; for the* Queen *is a most magnificent man-of-war: I never saw her equal.*' This opinion, publicly expressed, by such an officer, speaks volumes for the good qualities of this fine ship. When I saw Sir Samuel this morning, he again repeated the high opinion he had of the Queen, and said, 'Although I cannot write to Sir William Symonds, I wish you to express to him, in the strongest manner,

the very favourable opinion I have of the Queen, and that I think her the finest ship in the world.'

"He also spoke very highly of the Albion, and said, 'She is only second to the Queen.' The Admiral, I think, has formed his opinion from the noble manner in which the ships behaved, more than from the trials, which I regret have not been so satisfactory as I could have wished; but they were under every disadvantage to us.

"We had some trying weather: one night we were under storm staysails, blowing very hard, with a heavy sea. The Queen behaved beautifully; in fact she possesses the most admirable qualities in every respect. She is very weatherly, very easy, very stiff, fast, and steers and works remarkably well.

"The Vanguard has improved, but still there is something wrong about her.

"The Rodney behaved well this cruise, and the Admiral thinks well of her; but he has a poor opinion of St. Vincent and Trafalgar; the former rolls dreadfully, and heeled over 19 degrees in a squall: they were obliged to put six of their upper-deck guns below. The Trafalgar he considers slow.

"I suppose that the trials with the large ships are now at an end, and that they will be sent to their respective ports. The Queen will, of course, become the flag-ship here, and Sir H. Leeke will take my place, so I shall hope to have the pleasure of seeing you in a few days.

"Yours, &c. &c.
"B. W. WALKER."

"Sir W. Symonds."

"I forgot to add that the Queen, in this squall, when St. Vincent heeled 19 degrees, only heeled 8, under the same sail."

No. 208. *From Capt. R. F. Rowley, R.N., Flag-Captain at Plymouth.*

"H.M.S. St. Vincent, Plymouth, Oct. 12th, 1845.

"MY DEAR SIR WILLIAM,

"I cannot resist writing you a few lines, to congratulate you upon the success of the Queen. I have narrowly watched her in all her ways for more than three months, and whether in fine weather or foul, I cannot conceive a more perfect man-of-war; off the wind, or on a wind, nothing can beat, and very few come at all near, her. I believe her excellent qualities are so palpable that there cannot be a difference of opinion about her. You will, doubtless, have many congratu-

lations to read upon the same subject, therefore I shall add no more than that it would have done *you* good to have witnessed the admirable manner in which she has been handled.

"Believe me,

"Yours, very sincerely,

"R. F. ROWLEY."

"Sir W. Symonds."

No. 209. *From Captain Sir H. J. Leeke, Flag-Captain, Plymouth.*

"St. Michael's Terrace, 17th October, 1846.

"MY DEAR SIR WILLIAM,

"Thanks for your letter, and very kind congratulations. Mine (and all my family) attend you on your providential escape; I never heard of so narrow a one.

"Now for the ship—*the noble ship.* First, the extract: it really is wonderful to me that people can write in such a way. I repeat to you what I said before the Commodore (Sir F. Collier) and his Captain, amateurs, &c., on Saturday, before I arrived here, in which every officer of my ship will bear me out.

"*On every point of sailing*, in moderate weather as well as in strong breezes, except in a heavy head sea or swell, the Queen has, and will, beat the St. Vincent upon a wind, as much, as I imagine from the diagrams and reports of the officers, she ever did. With a head sea, St. Vincent is her equal generally; though Queen, I think, would always have a trifling advantage, if *steered* well and in trim. Off the wind, 'tis perfectly ridiculous to see Queen pass St. Vincent.

"The last trial before the wind, Commodore made my signal to make all sail, as he had done. I was then about 3 cables from him; ship's rate about 4 and 5 and 6 knots. At 11·15 A.M. started. At 2, he recalled us; we were 3½ miles ahead of him. The last night, Saturday, I had just dined with him; he had *chaffed* me about being in a *fine* sailing-ship with a *fine* band, wondering that I did not run up on his quarter, and give them a tune. When I had hoisted my boat up and made sail (7 P.M.), I was 3 miles right astern of him; all reefs out, courses, jib, driver, topgallant-sails and royals, and fore-topmast and topgallant-studding-sails; wind rather *before* the beam; heavy swell on lee-bow; both ships under the same sail, going 6 and 7 knots. At 8, I was on his beam, studding-sails in, mainsail up, royals furled, giving him the tune he had asked for! I kept company under that sail. At 8·20, I played him 'Rule Britannia,' and hauled

gradually out on his weather-bow. In topgallant and two reefs, still keeping ahead of him easily! Twice he has beat us. I have never seen the ship in *different* trims; and fancying, from her carrying a slack helm, that, if she was by the head when light, it would improve her, I moved 20 tons forward, and sent the watch on the forecastle; but after an hour or two, or perhaps more, I saw it was useless, and then removed all this, and trimmed still more by the stern. It is really something extraordinary to see the ship run up with St. Vincent (upon a wind), in light winds; and I can venture to assert that, with the exception of the days I have trimmed forward, we have invariably beat her.

You well know that two large ships in calms, light airs, and a very *heavy swell*, if they do not steer, they soon separate, if their heads are in different directions. I have always preferred being 5 miles from St. Vincent in calms and heavy swells, to 5 cables; and my orders have invariably been to that effect. We have, upon a wind (particularly on our last trial), run up with her, shortened sail, dropped, — run up again, and so forth, feeling that we could play round her. I am speaking of that occasion.

"I care not for other reports. I am no prejudiced person. One builder to me is as another when called upon to speak the truth; and as such I pronounce the Queen to be the finest and most perfect man-of-war in the world. She may be at times beat by Vanguard, Superb, or those very fast ships; but her *stability*, her *steadiness*, is something wonderful. Remember, although I say all this, I pronounce St. Vincent a *very, very* fine three-decker; but I go to this point: supposing her equal in sailing to Queen, and both ships run up with an enemy's running fleet, a *heavy sea* and *heavy breeze*, St. Vincent could not show a port up, when Queen would fight some of her lower-deck guns; perhaps two thirds, certainly half.

"I have seen Queen in two heavy squalls, and such squalls as, thank God, are seldom witnessed: one off the Deadman, upon a lee-shore (two miles west of us). I was obliged to shake our reef out of topsails, and out reef of courses. She behaved *nobly — beautifully*, and was the admiration of every seaman on board. She positively did not feel it; her inclination 9°; and to see her crawl *gradually* off to 8 miles, would have done your heart good. Well, I arrived here in safety. The day after we saw St. Vincent in a squall, when cutting her anchor in the Sound; head yards a box. Everybody on shore thought she would go over. *I did not;* but I believe her middle-deck ports were in the water. Just after this, in Caw-

sand Bay, another squall took her; she was just bracing round her head yards—*two reefs, foresail,*—the upper part of middle-deck ports in water!! I did not see this (the squall was heavy); foretopsail split; foretopsail-brace went; up helm, and came into the Sound again. It was certainly dirty weather, and I was glad to see her there. Now, my dear Symonds, I have given you as near the truth as I can. By-the-by, I forgot to remark upon the last part of the extract you send:—'Off the wind in *moderate weather,* Queen gains, &c.; which is, however, reversed, when by force of wind and under low sail, &c.'

"It is perfectly laughable. In strong breezes, free, 'tis impossible to keep astern of her. There are those who are positively determined Queen shall *not* sail; but it won't do. 'Tis capital to see how worried they get, and how savage. Sir F. Collier has certainly done much for St. Vincent, and has been very fair in trying to start ships rightly; but 'tis all nonsense, and the truth never will be got at. Yours are, without doubt, the best and finest ships I have seen. Vanguard, Albion, Superb, roll certainly; but they go like waterwitches. Now let me beg of you to try Queen with more ballast and 68-pounders on lower deck; leave out 30 tons of water, and she will then be fit for anything. I have watched her day and night, light and full, under every circumstance; have been for eighteen hours upon her deck without quitting it, and believe me, she would go better, particularly when light. I should not offer this opinion, but for my anxiety about her and you. I have written off-hand without having reports or logs to refer to; but they are forthcoming at any time. I hope next time we shall, after a touch of Milbrook Lake, go into dock.

"Pray forgive such a lengthy scrawl, but I have been led on. What a pity it is that some extracts from Queen cannot get into the papers. We have some lying brutes writing against us; 'tis a shame, and we dare not answer the dastards.

"Ever sincerely yours,

"HENRY J. LEEKE."

[Now Rear-Admiral Sir H. Leeke, late Commander-in-Chief, Indian Navy.]

"Sir W. Symonds."

No. 210. *From the Secretary of the Admiralty.*

"Admiralty, July 31, 1848.

"SIR,

"I am commanded by my Lords Commissioners of the Admiralty to send you, herewith, for your information, a

copy of a report from Vice-Admiral Sir William Parker, upon the sailing qualities of the Queen, and other ships under his orders.

"I am, Sir, your most obedient servant,

"H. G. WARD."

"Captain Sir William Symonds, R.N."

[Enclosure.] *From Vice-Admiral Sir William Parker, Bart.*

"Hibernia, at Sea,
"Off Cape St. Vito, Sicily, July 11, 1848.

"SIR,

"I request you will inform the Lords Commissioners of the Admiralty, that two trials of sailing have been made with the Queen, and other ships of the squadron, since we left Malta.

"The first on the 3d inst., in a strong breeze, close hauled, which has shown the great powers of the stability and weatherly properties of the Queen in a surprising manner.

"She carried her topgallant-sails over whole topsails, with very little inclination; all the other ships having one reef in, except the Hibernia*, which was under double-reefed topsails, being as much as she could comfortably carry.

"2. I have not yet received the returns of the ships, to give the comparative advantages precisely; but their Lordships may like to know that, in this trial, the Superb certainly outstripped her competitors, beating the Queen and Vanguard, which were nearly equal, about 1½ miles to windward, in 5¾ hours; the Vengeance† 4 miles; and the Hibernia and Rodney 5 miles; the two latter being nearly on a par. The last ship appears to have gradually declined in her sailing properties.

"3. The squadron are now trying sailing in a fresh breeze, with the wind on the quarter, in which the Queen greatly surpasses all the others.

"The Superb and Vanguard are running nearly alike, and they are beating *this* ship at the rate of nearly a mile an hour.

"The Rodney, having carried away her fore-topmast tresseltrees, is not included in the competition; and the Vengeance is detached off Mauritius.

"4. I do not perceive that any of the ships have suffered materially in speed, for having five months' provisions

* Hibernia, 104, built 1804, by Sir J. Henslowe.
† Vengeance, 84, built 1824, as the French Canopus.

and stores on board, and their water complete; but I think the Queen is evidently improved by being deeper in the water than when she left me off Cadiz, in September, 1846. *She is a prodigiously fine man-of-war in every respect.*

"5. The foregoing is a mere outline of the results, but I will send the particulars, in the prescribed forms, for their Lordships' information, as soon as I receive them.

"I have, &c. &c.

"W. PARKER, Vice-Admiral."

"The Secretary of the Admiralty."

H.M.S. IRIS, 26 *guns.*

Built 1840, at Pembroke. Tonnage, 907.

No. 211. *From Captain G. R. Mundy, R.N.**

[Extract.]

"H.M.S. Iris, at Sea, July 18th, 1844.

"I describe a trial of sailing with the French squadron I found in Singapore, consisting of the Sirène, 52, old build, 1823; Sabine 32, new build; and Victorieuse, 28, of 1808.

"At a large dinner at the Commodore's, at which I was present, the decidedly expressed opinion of the French officers was, 'that *la courte corvette* (Iris) might have a chance with the Sabine and Victorieuse, but nothing could sail with the Sirène.' On the 16th July, the squadron sailed, with a steady fresh breeze at S.E. The Straits are 30 miles long, 10 broad, a fine clear place, and having rounded a rock midchannel, you go away to the northward into the China Sea. Half an hour after they were all out, under all sail by the winds, I weighed, and when I was under the same sail, viz. topgallant-sails, whole topsails, courses, jib, and spanker, the Sirène was 3 miles distant and 2 points on the weather-bow, and the corvettes were a couple of miles directly ahead of me. This was at 10 A.M. Twenty minutes' sailing convinced me that the corvettes were beaten; and at 11 A.M. I passed half a mile to windward of both of them.

* Now in command of H.M.S. Nile, 90.

"At this hour, Iris had also gained one mile on the Sirène, and had weathered a little. At noon, Sirène was $1\frac{1}{4}$ mile in the wind's eye, when she tacked. Iris tacked when Sirène was a-beam. At 12·30 Sirène tacked again, and tried her royals, but could not carry them; I fetched close under her lee-quarter and tacked. The breeze now gradually freshened, and from this moment Iris steadily forereached and weathered also (the wind steady at the same point); and at 2 P.M., Iris was on the weather-beam of Sirène; at 3·30 the Sirène was one point abaft the Iris's lee-beam. In short, nothing could be more satisfactory. At this moment the corvettes were hull down to leeward."

"2 Grosvenor Street West, Nov. 25th, 1844.

"SIR,

"The above is an abbreviated extract from my nephew's letter, which may gratify you.

"Very truly your obedient servant,

"G. MUNDY."

[Now Admiral Sir G. Mundy.]

"Sir W. Symonds."

No. 212. *From Captain R. Mundy, R.N.*

"H.M.S. Iris, Plymouth Sound, Monday, November 27th, 1844.

"MY DEAR BAILLIE,

"You will have heard that Fox *, Rhadamanthus, and Iris sailed from Spithead on the 19th, and encountered the same night a heavy gale of wind at the back of the Isle of Wight. Neither of the frigates was *quite* prepared; *we*, however, managed to regain the anchorage at St. Helen's, whilst the Fox could not show her nose to the wind, and bore up for Dungeness. The next morning, I got nearly one foot of my lower rigging, and made a second start on Thursday night, when the weather moderated a little. Forty of my men being here I was short handed, and twenty on board were on the sick list, so that I was obliged to work with few hands.

"The old gale soon returned, and then I made up my mind for a beat, and got in here yesterday at 3 P.M., having thrashed along under reefed courses and treble-reefed topsails; occasionally, also, under storm-sails. The ship behaved beautifully, not strain-

* Fox, 42, was built 1829, as the old Leda: Mr. White first tried his plan of lengthening the bow, upon her, in 1843. Rhadamanthus, 220-h.p., built 1832, by Mr. Roberts.

ing a rope-yarn, and astonished my young officers by her weatherly qualities — 10 knots under that sail. The weather was so thick, that we did not know if we had cleared the Start, when land appeared, and turned out to be the Deadman, 23 miles to windward of Plymouth.

"This, *entre nous*, I consider a great triumph for Iris, as Blackwood had frequently said, 'that he did not think she could stand against his new bowed craft;' and of course we were exactly similarly situated. The Admiral, and every one here, was surprised to see us.

"My orders induced me to carry a heavy press of sail, and there was nothing else for it. My defects are small, only some upper works carried away; but my cabin ports being badly fitted, I was bailing there all day. In four days I shall be ready again, by which time I hope *old Renard* may turn up.

"Yours ever,

"RODNEY MUNDY."

"Capt. W. B. Hamilton, R.N."

"Blackwood being to *windward* of me in the gale, when we first started, ought also to have regained St. Helen's."

H.M.S. SPARTAN, 26 *guns*.

Built 1841, at Plymouth. Tonnage, 918.

No. 213. *From Captain the Hon. C. G. J. B. Elliot, R.N.*

"H.M.S. Spartan, Port Royal, Jamaica, Feb. 4, 1844.

"MY DEAR SIR,

"Almost for the first time, we have had a good trial of the Spartan's sailing qualities. We left this, ten days ago, with the Illustrious and Eurydice, and were joined the same day by the Inconstant*; after which we cruised off the coast of Jamaica for a week, the Admiral making us try rate of sailing each day. For the first two days the wind was light, but afterwards blew a fresh breeze, sometimes reducing us to double-reefed topsails. On every occasion the Spartan went to windward of the Eurydice, and once only was weathered by the Inconstant; and, even that day, we had beat her from 8 o'clock

* Illustrious, 74, built 1803, by Sir J. Henslowe; Eurydice, 26, built 1843, by Admiral Elliot (Captain Elliot's uncle); Inconstant, 36, by Captain Hayes.

till 3 P.M., when the wind became partial, leaving us almost becalmed for some time, whilst she continued to keep the breeze.

"Altogether the trial has been most satisfactory. Off the wind we had several trials with the Eurydice. With the wind abaft the beam, the latter generally beat us, but not much. With the wind a-beam, in a fresh breeze, we had one trial, and sailed very equally, the Spartan having a little the advantage. We each had on board two months' bread, and three months of other provisions, and went out of harbour nearly complete of water.

"I was very anxious about the stand of the masts, which are raked considerably, the foremast being even a little more aft than the mainmast; but from the manner in which the ship works and steers, I have every reason to think they cannot be better whilst the ship is 22 inches by the stern.

"She was uncommonly easy against some nasty head sea, and never strained or carried away anything (except a flying jib-boom and studding-sail boom), although we all had a good deal of sail occasionally. The Inconstant had to bear up the fourth day, having sprung her bowsprit badly. Believe me, in haste,

"Very sincerely yours,

"CHARLES G. J. B. ELLIOT."*

"Sir W. Symonds."

No. 214. *From Lieutenant E. Tatham, R.N.*

"H.M.S. Spartan, Port Royal.

"MY DEAR CAPTAIN SMART,†

"We have just returned from a trial cruise with Eurydice and Inconstant, in which we have been most successful, beating both; the former, more than was expected from the impression given on reports of her former trials. As the matter may interest you, I will briefly copy our report, the angles being taken and compared by our Master and Naval Instructor. The circumstance of my being kept as First-Lieutenant, has curiously placed me in Eurydice's rival, instead of Eurydice.

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* Captain G. J. Brydone Elliot is a grandson of Brydone the traveller, author of that most agreeable and well-written book, *Letters from Sicily*, addressed to another master of pure English, Beckford of Fonthill.

† Rear-Admiral R. Smart, late Captain-Superintendent of Pembroke Dockyard.

Date and Day.	Length of time Sailing.	How sailing.	What Sail.	Force of Wind.	What Sea.	Positions and Distances.
	h. min.					
Thursday, Jan. 25.	2 45	Before the wind.	Studding-sails both sides.	3	None.	Commenced, Eurydice 2 points off lee-bow, 550 yards. Ended, Eurydice 4½ points on lee-bow, 1260 yards.
Ditto.	3 17	On a wind.	All plain sail.	3	None.	Commenced, Eurydice astern 320 yards. Ended, Eurydice 1½ points before lee-beam, 1160 yards.
Friday, 26.	4 0	On a wind.	All plain sail.	3	None.	Commenced, Eurydice half point before lee-beam, 1356 yards. Ended, Eurydice 3 points before lee-beam, 4130 yards.
Saturday, 27.	3 0	On a wind.	Single-reefed topsails and topgallant-sails.	5 and 6	Trifling sea from E N.E.	Commenced, Eurydice 1 point on weather-bow, 660 yards. Ended, Eurydice 3 points on lee-beam, 4000 yards.
Sunday, 28.	9 0	On a wind.	Double-reefs; then all sail.	6 to 3	Heavy sea from N.N.E.	Commenced, Eurydice half point on weather bow, 800 yards. Ended, Eurydice 7½ points on lee-beam aft, 2300 yards.
Monday, 29.	5 0	On a wind.	Single reefs.	6 to 5	Slight head sea.	Commenced, Eurydice half point on weather-bow, 432 yards. Ended, Eurydice 5¼ points abaft lee-beam, 3440 yards.
Tuesday, 30.	2 0	On a wind.	All plain sail.	6	Trifling sea.	Commenced, Eurydice half point on lee-bow, 1080 yards. Ended, Eurydice 6 points abaft lee-beam, 4000 yards.
Ditto.	2 20	On a wind.	Single reefs.	6	Ditto.	Commenced, Eurydice ahead 400 yards. Ended, Eurydice lee-beam 2580 yards.
Ditto.	2 0	Wind a-beam.	All sail, plain sail.	6	Sea from N.E.	Commenced, Eurydice 2¾ before lee-beam, 2580 yards. Ended, Eurydice 3¼ ditto, 2200 yards.
Ditto.	1 30	5 points abaft beam.	Studding-sails.	6	Ditto.	Commenced, Eurydice 4½ before weather-beam, 320 yards. Ended, Eurydice 6¼ ditto, 1680 yards.

"You will perceive that, on the long trial of nine hours, we gained comparatively little. Eurydice stood on opposite tack, and getting a strong wind and slant, neared us in a manner she would not have otherwise done. We beat Inconstant every day; but during the last *hour* of our trial she managed to cross our bows, and spring her bowsprit. We had three days with her, until her accident, and return to Port Royal.

"Believe me, my dear Sir,

"EDWARD TATHAM." *

[Now Captain E. Tatham, of 1854.]

"To Capt. Smart, R.N."

No. 215. *From Captain T. M. C. Symonds, R.N.*

"H.M.S. Spartan, at Sea, May 25, 1849.

"SIR,

"1. With reference to your memorandum, dated Thetis, at Sea, May 17, 1849, received by me on the 25th instant,

"2. I have the honour to inform you, that I consider that the late trials between H.M. Ships Thetis† and Spartan have proved Spartan to be very superior to, and more weatherly on a wind than, Thetis, more particularly in strong breezes and a heavy sea. That Spartan is a little faster than Thetis, with the wind a point free.

"3. That Thetis is faster than Spartan in light winds, with the wind on the quarter, and right aft. Against a head sea, the Thetis appears to me to be more impeded thereby than the Spartan, and to pitch heavier. The rolling motion seems to me the same.

"4. In carrying sail, Spartan has never sprung a spar, or broken a rope, excepting the flying-jib-stay, a very old rope; while Thetis has lost a top-gallant-mast, broken a topsail-tye (I believe), carried away a topsail-sheet, and both maintop-gallant-sheets.

"5. I have never seen so much sail carried by any ship, as in this ship on the 19th and the 22nd May; and no ship could behave better, or be easier, than H.M.S. Spartan, in which every officer in this ship concurs.

"6. 26th May.—The Thetis appears to be a little faster

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* Made a Commander, 1846, for jumping overboard after a marine, at the risk of his life,

† Thetis, 36, built 1846, by Messrs. Read, Chatfield, and Creuze, of the School of Naval Architecture.

than Spartan in light winds, with the wind abeam; with the wind one point abaft the beam (light winds), the Spartan was coming up with the Thetis when the trial of to-day ended.

"7. The advantage that Thetis has over Spartan going free, I attribute very much to her having been so much later docked than the Spartan.

"I have the honour to be, Sir,

"Your most obedient humble servant,

"THOMAS M. C. SYMONDS, Captain." *

"We quite concur with the above report.

"HENRY CROFT, First-Lieutenant.
[Now Captain H. Croft, of 1856.]
"S. M. HAMMET, Second-Lieutenant.
"HENRY A. CLAVERING, Third-Lieutenant.
"H. B. BURNABY, Fourth-Lieutenant.
"JAMES BODIE, Master.
"CHARLES TURNER, Second-Master."

"To Captain Henry J. Codrington, C.B.,
Senior Officer, &c. &c. &c., H.M.S. Thetis."

H.M.B. SIREN, 16 *guns*.

Built 1841, at Woolwich. Tonnage, 549.

No. 216. *Extract of a Letter from Lieutenant Nott (now Commander G. B. Nott), to his brother, Captain G. N. Nott.* †

"H.M.S. Siren, Calcutta, April 13, 1843.

"The Siren is, without exception, the finest brig I ever beheld. She carries ten weeks' water, and four months' provision for 125 men, under hatches; works beautifully, always within 10 points; and her common rate of sailing is 8½ knots on a bowline. She has never strained a rope-yarn; and the running gear we now use is the same we rove in England, eighteen months ago. The accommodations are splendid for a brig, the quarters most roomy; and she carries her 25-cwt. guns without complaining in the least.

* Captain T. Symonds, of 1841, was made C.B. for services in the Crimea, 1856.

† The late Captain G. N. Nott.

"As yet we have not seen a man-of-war to try with, except the Lily, at the Cape of Good Hope, and the difference of sailing between us was too ridiculous for comparison."

No. 217. *From Capt. H. Edgell, R.N.*

"H.M.S. Siren, off Gibraltar, Jan. 6, 1847.

"DEAR SIR WILLIAM,

"I intended writing to you about Siren when we returned from Syria, after trying with Inconstant, but the *sad* loss I have sustained in the death of my poor father*, has prevented my doing so till now. I leave the brig with great *regret*, for a finer one in every respect no one could command.

"When in company with Hibernia and Tyne, the Admiral ordered us to try rate of sailing at 10 A.M., and placed Siren 3 cables' length *astern* of Tyne. Light winds, whole topsails, and royals. In half an hour we had passed her, and contrived to crawl away. Our trial continued through the Doro passage, and by sunset we were 3 miles to windward; Hibernia nowhere; Tyne† occasionally heeling from 14° to 16°; 'a perfect man-of-war,' laying her weather guns at the gulls, her lee ones at the fish. I should like to have had him under double-reefed topsails and topgallant-sails.

"With Inconstant, on the coast of Syria, we had four trials, all light winds. Dead before it, we beat her in a run of 40 miles about 1 mile; close hauled against a long head swell, in six hours, about 400 yards to windward; but if allowed to stand on, forereached considerably. We had then no provisions, and were quite light. Captain Freemantle said, 'we beat him; 'twas but little, but very creditable.' With the Smyrna French clippers we astonished them; light or strong breezes, short or long tacks, they stand no chance. And we have never yet been beaten since I have commanded her. Although by hogging every Saturday, we keep the grass off, still her bottom gets foul; her best trim we find about 1ft. 3in. by the stern.

"Capt. Chaloner remaining at Gibraltar, I was obliged to take the brig down; and such weather the oldest Mediterranean hand had never seen. We left on Friday the 12th of December, with a breeze from the eastward, which carried us off Pantellaria, when the westerly gales commenced, and continued incessantly for 16 days. By carrying a press of sail, we cleared

* Rear-Admiral Edgell died June, 1846.

† Tyne, 26; built 1826, by Sir R. Seppings. Hibernia, 104; by Henslowe. Inconstant, 36; by Hayes.

Maritimo, and lay-to under close-reefed main-topsail. She behaved beautifully; we blew one main-topsail away, and were battened down for 12 days; no lights; and a heavy cross sea, heavier than I ever saw it in the Mediterranean; and this is my third time. She did not carry away a single rope, nor did we discover a chafe. She is very quick, and pitches deep, but does not strain. Our jolly-boat was soon stove, but she did not ship a sea, merely the tops of the sprays. The sea was so heavy that every moment you expected you must tumble overboard, yet, like a sea-gull, she rose beautifully over all.

"Although it was very tiresome, and bitterly cold, and wet, with snow and sleet, yet I am more glad I saw the dear brig to such advantage, for I can honestly report her as good and easy a sea-boat (not carrying away any thing) as ever floated; and I served in many of the old 18's. Her masts from being so taunt, strain her in the wake of the channels; otherwise she carries them well. Her bowsprit is too much out-board for the little security there is inboard; and our rope gammoning chafed considerably. Some time back, at Malta, I rove a chain gammoning and put on an outer bobstay, and in these last gales it was perfectly secure, and did not work at all. We are all proud of her, and it has been most fortunate for me, being under so good an officer as Sir W. Parker, and having so fine a vessel, to show that a ship may look well, be in good discipline, and most comfortable withal. I trust you will not think I have been neglectful in delaying writing so long, on my good brig's perfections; but it was useless writing till I could say something to the point; and I only hope that some future day, I may have the satisfaction of commanding one of your fine 'six-and-twentys,'—the height of my ambition, for they must do any man credit.

"In light airs Siren is celebrated, going 1 and 2 with a perceptible breeze; and now that she is leaving this station, with so good a name, I most sincerely trust it is only to gain greater laurels in other waters, where her sailing qualities will be of greater benefit to the service, and mankind in general. I think few slavers will escape from her, if she once sights them. I am so glad I applied for two 18-pounders as chase guns.

"I remain at Malta till May. I hope to see your son, my messmate, to-morrow; and with every sincere wish,

"Believe me, dear Sir William, &c.,

"HARRY EDGELL."

"Sir W. Symonds."

H.M.S. ALBION. 90 *guns.*

Built 1842, at Devonport. Tonnage, 3110.

No. 218. ***From Second-Captain W. Chambers, R.N.***

"H.M.S. Albion, at Sea, Jan. 25, 1844.

"My dear Admiral Bouverie,

"I have not answered your note of the 20th before, wishing to be able to tell you more than I could from the Sound.

"The reports of the papers about Albion are so contradictory that I do not know in what way to take them; but the one of the *Standard* is really too bad,—'She is coming down like a sand barge!' We have our ports 6 feet 6 inches now, that is, when we left the Sound.

"We have 5 months of all sorts of provisions; 407 tons of water,—our main hold would hold six months', easy, and we have filled the month's space with wood. Spirit-room filled with all sorts of stores, necessaries, and slops for a twelvemonth.

"We spoke the Penelope yesterday. Had a three hours' trial. In very light winds she had not a chance. We have only 30 tons of ballast, and that I hope to get out,

"Cove of Cork, Jan. 30th.

"We arrived yesterday morning, having had two days of strong winds. Nothing can be better than her performances. With two reefs in the topsails and topgallant-sails, 9 and 6 [*i. e.* 9 knots 6 fathoms] within 6 points,—I think 5 points afterwards; with moderate breeze, with single reef and topgallant-sails, 9 and 4, close as she could lie. The Captain being sick, the spanker was furled, and without either jib or spanker, we stayed, and had the foresheet aft within the 2 minutes.

"With a strong breeze she has never yet heeled more than $4\frac{1}{2}$ degrees. This report is correct, and you have my permission to contradict anything said to the contrary. Lower-deck ports, 6 feet 6 inches. We kept some of the after lower-deck ports open when the spars and sails required two reefs.

"Believe me, yours very faithfully,

"W. W. Chambers."

[Now Captain W. W. Chambers, of 1846.]

"Admiral Hon. D. P. Bouverie."

No. 219. *From Mr. S. Northcote, Master, R.N.*

"H.M.S. Albion, Cove of Cork, Jan. 31st, 1844.

. . . "It affords me great pleasure to comply with your request, and, particularly so, as I am conscientiously able to refute the vile and diabolical assertions respecting our noble ship.

"In the first place, I will give you her floatation when provisioned for 5 months, of all species; she will now take another month's provisions comfortably under hatches, and more of bread. She stows 410 tons of water, and has twelvemonths' stores, with ten months' fuel. Her draught, then, was,—forward, 23 feet 6 inches; aft, 24 feet 7 inches; height of midship port, 6 feet 6 inches; this should be called 6 feet 8 inches, as the port-sills amidships were cut down to allow the depression of the 84-pounder guns which the Admiralty thought of putting into her.

"She is now armed with twelve 68-pounders; the remainder long 32's, 56 cwt., except, on the quarter-deck and forecastle, twenty-four 32-pounders, 8 feet 6 inch. 42-cwt. guns; and two 68-pounders on the quarter-deck; making in all 90 guns actually mounted. This line of floatation, I should observe, agrees to half an inch of her talented constructor's calculation.

"Now for her qualities. So far as we have been able to judge at sea, she works and steers like a boat; that is, quicker and better than any ship I ever sailed in. On Sunday last we had a good trial by the wind, with as much wind as her masts would bear, under double-reefed topsails, courses, &c. Her inclination never exceeded 4½ degrees; she was then going 10 knots, and working within 10½ points of the compass. At this time there was a short sea, and on one tack ahead she was far from being uneasy. Her motion is quick, but very easy; and, on the whole, I do think her the most splendid ship ever built: her constructor must be proud of her. For my part, I am perfectly unprejudiced.

"I am, &c.,

"S. G. J. NORTHCOTE, Master."

No. 220. *From Commander W. W. Chambers, R.N.*

"The Albion, Lisbon, March 6th, 1844.

"MY DEAR SYMONDS,

"I am sure you will be glad to have a line to hear about the old dear barky.

"We left Cork on the 21st., and having cleared the land well,

the following morning we fell into a terrific swell from the westward; wind moderate, from N.E.; head sea, which necessarily made her roll, not deep, but rather quick; of course many complaints.

"23rd.—Heavy gales; ship behaving nobly; wind westerly, blew away main-topsail sheets, fore sheets; and nothing could stand.

"24th.—Heavy gales; at times under close-reefed main-topsail; sometimes reefed foresail and fore-topsail.

"25th.—Fidded topgallant-masts, and out 3rd reefs for the first time.—P.M. Strong gales; again down topgallant-masts, under close-reefed main-topsail.

"26th.—Wind shifted to the N.W. in a squall; head sea again; found the rigging wanted swifting in.

"27th.—We got a fine breeze from N.E. with the heaviest swell I ever saw; ship going 11, easy.

"The wind afterwards came S.E. for the rest of the cruise, and we got here on the 3rd. We are now getting the ship to rights. You will be glad to hear that there is not a chafe in the rigging, nor do we require the topgallant-masts down. Got 8 inches of the rigging. Her pitch is as easy as I ever saw,—in fact, nothing can be better.

"Believe me, yours faithfully,
"W. W. CHAMBERS."

"Capt. T. M. Symonds, R.N."

No. 221. *From Captain G. W. Willes, R.N.*

"H.M.S. Vanguard, Phalerum Bay, 5th Sept. 1847.

"SIR,

"I have the honour to report to you the results of the several trials of sailing which have offered at this season of the year, between H.M. ships Vanguard, Rodney*, and Albion; and have the satisfaction of reporting to you, that I am of opinion the Albion has improved in sailing since she took ballast in at Malta. Although she is not equal to Vanguard, yet she would be a good ship to despatch with her on particular service, while Rodney would cause a great detention; even in a run of 1000 miles, we should lose, by her accompanying us, one third the time.

"I have very narrowly watched the Albion during the last three summers, and frequently talked it over with the late Captain Lockyer. I have witnessed her handiness in working in and out of the many narrow harbours and passages since she has been under my orders, and in every sort of weather. I

* Rodney, 92, by Seppings.

do not hesitate in saying that she is a most wonderful production: for her great dimensions, she is superior to any ship I have ever seen at sea, except the Queen, and quite equal to carry all 68-pounder guns on the lower deck, if 32-pounders were substituted for those above them. This might, with the ballast she now has, tend to make her more weatherly, and check her great rolling motion in heavy weather, which I have often seen. At the same time, it would, in a great measure, render her less sensitive to any loss of provisions or stores below.

"I cannot be but aware of the outcry about the Albion's lower-deck ports being so much nearer the water than the Rodney's; but then, it must be observed, that the Albion can carry her lower-deck ports open longer than Rodney, and fight them better, on account of her heeling over less under a press of sail; she consequently might, if necessary, go into action, using her guns, while Rodney must shorten sail before she could do so.

"The only strong wind we have had for eight hours together, was coming from Patras, a fortnight since, when I made the signal, to 'try rate of sailing.' It was a fair, treble-reefed topsail breeze; we shook out one reef more, set topgallant-sails and courses, small jib, and reefed spanker. Albion appeared to go easy, Vanguard tolerably so, Rodney dipped and plunged deep and heavily, and, in six hours, was half-hull down astern. Albion dropped into our wake, and, as the reports will show, her inclination was $4\frac{1}{2}$ degrees, Vanguard and Rodney $7\frac{1}{2}$ degrees.

"The great inclination of the Vanguard was owing to her being light, and the want of a proper proportion of ballast; but the Rodney had weight enough in Captain Collyer's opinion, who is sadly sore at his ship (notwithstanding all his efforts) being so very slow, both in sailing and working; and although the Albion, in my opinion, has not performed so well since the first cruise I was out with her, under the command of Rear-Admiral Hyde Parker, and before being docked at Devonport, yet she may be termed a fair sailer.

"The Rodney's alteration has made her much worse in every respect.

"I hope you will excuse my writing so much into detail, but being fully aware that the anxiety of the Admiralty is very great about the Albion, I take leave to say, as I do, that I am satisfied she is in every respect the *finest ship in the Navy*.

"I have watched her attentively, in all kinds of weather, for two years and a half, except in a gale at anchor, and owing to the numerous changes of her officers during that period, and

particularly the death of Captain Lockyer, do I presume to give so strong an opinion of her.

"Captain Freemantle, I am glad to say, coincides with me on this subject, and had I my flag to-morrow, and the choice of ships, I should select the Albion.

"I have, &c.,

"G. W. WILLES, Captain." *

[The late Capt. G. W. Willes died (like his predecessor, Lockyer) in command of Vanguard, 1847.]

"Rear-Admiral Sir L. Curtis, Bart."

No. 222. *From Captain C. H. Freemantle, R.N.*

"H.M.S. Albion, Munichi Bay, Athens, September 5th, 1847.

"MY DEAR SIR CHARLES,

"Many thanks for your note of the 6th of July, which I have delayed answering, that I might have more opportunities of replying to your questions respecting this ship, as to the effect of the sixty tons of ballast put into her at Malta on her rolling propensities. Up to this time, I had no opportunity of forming any opinion, as, for the six months that I have now commanded, the weather (as is usually the case in the Mediterranean) has been so fine that we literally have never moved.

"Though at times the wind may have been strong, the sea nothing more than there is in a double-reefed topsail breeze, and only on one occasion have we felt that effect. So far as I have had an opportunity of judging of her, I consider her a splendid engine of war. She sails well, and, for her magnitude, is wonderfully hardy. With Vanguard and Rodney we have had several trials of sailing. The former has the advantage of us; but Rodney has no chance. On all points of sailing this ship beats her, very often at the rate of a mile an hour. During our last exercise, in a double-reefed topsail breeze, coming from Patras, we forereached on Rodney 9¾ miles in 8 hours, and held our own well with Vanguard; indeed, up to noon we beat her;

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* From Captain (now Vice-Admiral the Right Hon. Sir) M. F. F. Berkeley.

"Admiralty, October 7.

"MY DEAR SIR WILLIAM,

"From the Mediterranean there has been sent, by Captain Willes, of the Vanguard, a most triumphant report as to Albion. It will do your heart good when you see it; and I shall take care not to let the matter rest until you have a copy of the report, which I hope to see published.

"Yours sincerely,

"Sir W. Symonds." "M. F. F. BERKELEY."

but after that the wind lessened, and there was not so much sea, and she drew from us; but, during the day's trial, she had no more than half a mile advantage; and I am disposed to think, that in strong weather we should beat her. This ship has certainly much improved in her sailing since she left Malta. I should be very sorry to see the ballast taken out of her again, as I am satisfied that it must be of service in every respect; her inclination is seldom more than 4½° or 5°, when Rodney is 11°; lower-deck ports up, when hers are down, although she carries them a foot higher out of the water than this ship. I, therefore, have no hesitation in saying, that I consider her a magnificent ship; always withholding any opinion as to her rolling, of which I know nothing. There is no appearance of any strain amongst her rigging; and many things are, according to my ideas, much too slightly fitted; the ropes generally too small. Since I have been here, I have only sprung *one* fore-topmast studding-sail boom, though the fractures in my neighbours have been much more. Many sails are split, particularly topsails, owing to the leach ropes being too small, and some time in store."

"C. H. FREEMANTLE." *

"To Admiral Sir C. Adam."

"The above is a copy of a letter from Captain Freemantle to me.

"C. ADAM."†

"To Sir W. Symonds."

H.M.B. HELENA, 12 *guns*.

Built 1843, at Pembroke. Tonnage, 549.

No. 223. *From Commander Sir C. Ricketts, Bart., R.N.*

"H.M.S. Helena, Devonport, Jan. 8th, 1844.

"MY DEAR SIR,

"You will be glad to hear how Helena behaved on her maiden trip; and I can only say after three days' trial, in almost every variety of weather, that she seems to possess the most admirable qualities in every respect; as stiff, easy, fast, and not much wetter than the old first-class sloops. We went into

* Now Rear-Admiral Sir C. H. Freemantle.

† Vice-Admiral Sir C. Adam was, at this time, First Naval Lord at the Admiralty.

a gale of wind, on Monday evening the 1st, and became gradually reduced to close-reefed topsails, close-reefed boom mainsail, and fore and main storm-staysails, with a heavy sea; under which circumstances she did not strain a rope-yarn. I used the boom mainsail on this occasion, under the different reefs, on purpose to try her, and to show it is the easiest sail to manage possible.

"We left Spithead seven inches by the stern; of course at present crowded with baggage. I give up any very great nicety of trim, particularly as she behaves so well in present trim. I have let the jib-boom in eighteen inches, at present, instead of your suggestion of the one spar, finding we should lose so much jib, and sail with five feet outside jib-boom; and it is as well, as every spar in the vessel did not complain. The whole suit of sails stands to perfection. I have the honour to be,

"Yours faithfully,

"CORNWALLIS RICKETTS."

[Now Captain Sir C. Ricketts, Bart., of 1846.]

"Sir W. Symonds."

No. 224. *From Admiral Sir C. Adam.**

"H.M.S. Illustrious, Port Royal, 23d Feb. 1844.

"MY DEAR SIR WILLIAM,

"It is long since we had any communication, but I hear of you from time to time, and the last time I did so was by your beautiful Helena, which arrived here a week ago, after a remarkably quick passage, having been less than twenty-eight days at sea. Sir C. Ricketts spoke of her in high commendation, in all respects, and her passengers, Mr. and Mrs. Buckland, agree with him in thinking her a very easy ship.

"I have not been on board yet, but I am going to-day, and I hope to be able to send the Eurydice and Spartan to sea with her, that they may try their rate of sailing. I did go out towards the end of last month, as you no doubt will have heard before you get this letter, to try the rate of sailing of the Eurydice against the Inconstant and Spartan.† The Inconstant found her bowsprit sprung after three days' trial, and was obliged to come in to get a new one. How it happened is not easy to say (although it certainly houses too little), as the ships were seldom without topgallant-sails set; and, indeed, I thought

* Commander-in-Chief on the American station, from 1841 to 1845.

† See p. 681.

there was too little wind to try them fairly. Two of the three days, the Spartan weathered upon the Inconstant; and one day, when it blew freshest, the Inconstant weathered on the Spartan. They both, as might have been expected, weathered upon the Eurydice; and it was beautiful to see how the Spartan clawed away to windward when the other endeavoured to obtain the object by sailing faster over much more space.

"With the wind a-beam, or nearly so, the Spartan appeared to sail better than the Eurydice; but with studding-sails set, with the wind on the quarter, the Eurydice certainly beat the Spartan a good deal. There was no opportunity of trying the Inconstant against them, going free. All the three ships carried their sail beautifully; but I was surprised that the Eurydice (the question having been asked repeatedly by signal) did not show more inclination than the Spartan. I was very glad that the copper of the Spartan had become clean, from the ship having been some time, last autumn, in the fresh water of the St. Lawrence. I wish the Pique had been there also (and I will send her this year), for, by what I hear, she has lost much of her sailing, which certainly is unaccountable to me. I should like to have been in company with her and other ships to try to find out, but I was obliged to send her to the coast of Mexico. Certainly, when she came in here, the copper appeared to be very foul indeed.

"The Eurydice is a very nice ship, and I think Admiral Elliot has much reason to be satisfied with her. From the investigation I have made, I do not think Mr. Blake has quite done justice to her, at least as far as outside painting goes; for her seams were so open as to require caulking before she left Cork, and she will soon require it again. Captain Elliot tells me the hold was stowed, that is, the ballast and tanks, before he joined her; and, since she came here, the pumps have been found to be choked, and much dirt taken out. I shall send her to Bermuda to clear out, more especially as there is a slight leak somewhere, which perhaps may then be discovered. Sir C. Ricketts tells me you went out in the Albion the day he sailed. I hope you were satisfied with her, as far as you had an opportunity of judging.

"I occupied, as you know, part of last summer, by a tour to the Lakes Ontario, Erie, George, and Champlain, and the Falls of Niagara; and we got as far as New York, down the beautiful Hudson. I saw nothing at New York naval establishment worth caring about; dockyard it cannot be called, as there is not a dock in it. There was one huge frigate building, and a 20-gun corvette, with a very rising floor, but far too little beam,

and, as usual, too many guns. They were, however, doing a good deal to improve the establishment; and at Boston, where Captain Erskine visited the yard, and Commodore Nicholson, the Superintendent, was exceedingly civil to him, things appear to be on a much better footing, and some useful machinery is used. . . . .

"Believe me, very truly yours,

"CHAS. ADAM."

[The late Admiral Sir C. Adam died 1853, Governor of Greenwich Hospital.]

"I hope you have found things running smoother with you of late."

"Captain Sir Wm. Symonds, F.R.S., R.N.,
Surveyor of the Navy."

H.M.B. FLYING-FISH, 12 *guns.*

Built, 1844, at Pembroke. Tonnage, 445.

No. 225. *From Commander R. Harris, R.N.*

"Flying-Fish, Cape Mount (near Sierra Leone), August 12, 1845.

"MY DEAR SIR,

"I wrote to Captain Symonds by Growler, as we have not had an opportunity of sending letters for two months. There is nothing doing on the northern part of the coast, but they seem more active in the Bights, where, I am happy to say, Flying-Fish is now ordered. We have just taken in 6½ months' provisions, preparatory to a long cruise. I have dried my empty tanks, and put the bread in, and we shall soon eat all that is *above board.* Nothing that we have ever met has the slightest chance with us, and a vessel seen from the royal-yard, in the wind's eye, is under our guns in three hours. Actæon* is described as the most uneasy beast that ever was built; she rolls her main-deck guns in. It is a mistake to call this a smooth-water station; there is a heavy sea along the whole north coast. The Fish rides beautifully: for instance, we anchored in 21 fathoms water, with stream, chain, and kedge-anchor (3½ cwt.),

* Actæon, 26, built 1831, by Superior Shipwright Apprentices.

and veered to 60 fathoms; she rode out a fresh breeze, with very heavy swell, with royal yards across. I tried it as an experiment, lying seven miles off the land. I cannot say too much in her praise, and I am sure she has been well tried. The American brig of war Truxton, whose Captain maintained she could beat everything on the coast, after being beaten six miles in three hours, acknowledged that we sailed 'pretty handsomely.' We were in chase of him, and he tried his best to get away.

"Believe me, my dear Sir, yours faithfully,

"R. HARRIS."

[Now Captain R. Harris, of the Illustrious, training-ship.]

"Sir Wm. Symonds, &c. &c. &c."

H.M.ST.-F. SAMPSON, 450-*h.p.*

Built, 1844, at Woolwich. Tonnage, 1299.

No. 226. *From Captain T. Henderson, R.N.*

"H.M.S. Sampson, Valparaiso, June 26, 1846.

"MY DEAR W——,

"We are all delighted with Sampson, having found her a splendid vessel, either under steam or sail, and having had ample opportunity of proving her. We encountered a heavy gale in the Bay of Biscay, and carried away the necks of the domes of both hot wells. We seemed to be wrecked for the moment; but I got some of the smoothest staves from the cocoa casks, put them round the domes, and with straps and thimbles placed on the large discharging pipes and well spread lashings over the staves, brought the necks together again, patching them up with white lead and felt, so as to render them tight.

"We made so good a fishing of it, that we did not again disturb them until we anchored in the Straits of Magellan, where we made a beautiful repair of the whole, and found our wood axes of the utmost service, as we were enabled to cut wood to steam through the Straits with. Tell Captain Hamilton they were of the greatest service to us. We had wet, bad weather getting to Madeira, but had beat the West India packets three days; and although we sailed nearly the whole passage, we were only seventy-four days at sea on our voyage to Valparaiso. We were never much favoured with fair winds,

and had some tremendous gales against us, off the south coast of Chili. Our passage through the Straits of Magellan was most interesting. I found Captain Fitzroy's charts and directions so correct, that I steamed thirty miles up the first night, after dark, before I anchored. We were visited by some Patagonians; one of the ladies was upwards of 6 feet, and one of the gentlemen 6 feet 3 inches high; all of them rather big people, and seemingly very good-natured. We are now enjoying the second winter, and Valparaiso is anything but the 'valley of Paradise' just now. Sir George* is expected in the course of a month, and I will await his arrival. . . . .

"She is a most powerful and efficient steamer, and is very fast under steam or sail, going 10 and 11 with half the fires, and 10½ under sail, whilst exercising the great guns. I'll be bound the French Caraibe would not have done with us as she did with Penelope.

"Believe me, ever yours faithfully,

"THOS. HENDERSON."

"To ———."

H.M.S. CONSTANCE, 50 *guns*.

Built 1846, at Pembroke. Tonnage, 2132.

No. 227. *From Captain Sir B. W. Walker, R.N.*

"H.M.S. Constance, Valparaiso, Nov. 24, 1846.

"MY DEAR SIR WILLIAM,

"You will be glad to hear that we arrived here safe and well on the 18th, and that the Constance behaved beautifully during our passage round Cape Horn. Indeed, I can most conscientiously say, that I think her a good sea-boat, and a fine man-of-war. It is impossible for any ship to have behaved better. When in 62° south latitude, we had a hurricane, with a disagreeable sea; but nothing could have exceeded the beautiful way in which she went over it, without straining a rope-yarn. Indeed, I think her bow as near perfection as possible. Although we frequently carried a press of sail against

* Sir G. F. Seymour, Commander-in-Chief in the Pacific, from 1844 to 1848.

a heavy head sea, going occasionally 7 and 8 knots, on a wind, under close-reefed topsails and reefed courses, we anchored here without having strained, or requiring the slightest refit of any kind; and the Admiral was much pleased when I reported the ship at once ready to proceed round the world, if required.

"Our rigging did not want setting up, and as we blacked down two days before our arrival, and painted—making good all the time 220 miles a day—the ship looked fresh when we arrived, and none of the foreigners would believe that we had come round Cape Horn. Sir George Seymour, and all hands, are loud in their praises, and think Constance a magnificent ship.

"The Admiral inspected us yesterday; he paid us a very high compliment, and was much pleased with the ship; but he was much surprised to see the mizen-mast so far aft; and after having looked at the beams, &c., he said it would be impossible to shift the masts out here. I hope that long ere this you have received the reports of our trial with the Raleigh, and that something has been done about ordering us home. Her masts ought certainly to be shifted, for she steers wild when free; and, on a wind, with a fresh breeze, carries, with every sail off the mizen-mast, half a turn of weather-helm. I think, with her straight stern, the masts require to be further forward than the Vernon's.

"We have tried her in every trim, but nothing appears to do good. The few vessels we saw, we passed like a shot, and we had a good passage out. When you deduct the stoppages, we were not more than eighty days. The Admiral talks of sending us to the northward, which I am sorry for. I told him that I thought we should soon be ordered home, to have our masts shifted, and try with the new ships next year, for really as yet we have had no trial. . . . . .

"Believe me, sincerely yours,

"B. W. WALKER."

[Now Captain Sir B. W. Walker, Bart., Surveyor of the Navy.]

"To Sir W. Symonds."

No. 228. *From Captain G. W. Courtenay, R.N.*

"Constance, Valparaiso, Dec. 27, 1847.

"MY DEAR SIR WILLIAM,

"Although I am not a regular correspondent of yours, I trust you will pardon my putting you to the expense of postage, since I am in command of your truly noble frigate, the Constance, which I received in first-rate order from Walker, about a month since. She is the admired of all beholders, and

is visited more than all the men-of-war in port, including foreigners, put together.

"We have been out upon a five days' cruise, to try with the Collingwood, Carysfort, and a Baltimore clipper brigantine in the service of Chili, all of whom we made an example of, though by no means in our best trim.

"Before you receive this, you will have seen Walker. I think, with him, that, although the ship is as near perfection as sea or earthly things can be, she would be improved by her masts being shifted a little further forward. She carries so much weather-helm when going at all fast, that it must necessarily impede her velocity. We stow eight months' below with ease; nothing above the orlop. How different from the Grampus!*

"I sincerely hope this will find you quite well.

"With best wishes, believe me, dear Symonds, yours very sincerely,

"GEORGE COURTENAY."

[Now Rear-Admiral G. Courtenay.]

"Sir W. Symonds."

H.M.S. ARETHUSA, 50 *guns*.

Built 1849, at Pembroke. Tonnage, 2149.

No. 229. *From Captain T. M. C. Symonds, R.N.*

[Extract.]

"Arethusa, at Sea, Nov. 23, 1850.

"You will hear of Phaeton being disabled in a gale, but not that we have twice beaten her, and outcarried, and disabled her in a breeze. On the 18th November, under all sail on a wind, a press of canvas, we beat Phaeton a quarter of a mile in an hour, Arethusa standing up to her sail like a church; while Phaeton heeled very much, and appeared sorely pressed, and ended the trial by shortening all sail, disabled (fore-topmast fid gone).

"We were beating her handsomely, when she shortened sail. Leander and others were literally nowhere, as we beat them nearly a mile an hour. Nothing could be more easy than

* Grampus, 50, built 1784, by E. Hunt, Esq., as a 74.

Arethusa. On the 19th November, being in order of sailing, close reefed, we were ordered to form close to Phaeton, 4 miles to leeward of Prince Regent. Arethusa shook out three reefs, all the others two; Phaeton*, however, very unwillingly apparently, shook out another just before starting. At 9·30, signal to *carry all possible sail*, on a wind. At 9·40, we were all started, when Arethusa set topgallant-sails over single-reefed topsails, courses, jib, and spanker. Phaeton sent men up to loose topgallant-sails, but the men were called down.

"For forty minutes we sailed, going 9 knots, against a very considerable head sea, weathering and forereaching fast on Phaeton (540 yards), who seemed to pitch exceedingly heavy; for her bowsprit appeared to me to dip under water, and I saw her run, from amidships to right aft, when she pitched. The easiness of Arethusa was the astonishment and remark of all on board. At 10·20, I observed Phaeton's jib-boom gone, both topsail-sheets gone, the topsail-yards crossed, as on Good-Friday, peak of spanker down, and main-sheet eased off. Arethusa cracked on for from five to ten minutes longer, when she took in topgallant-sails—

"Not a sheet or a tack,
Or a brace did they slack,
On board of the Arethusa!"

Arrogant's topgallant-sails and jib blowing away, she was, with Leander†, left an amazing distance to leeward. Phaeton made signal, 'Foremast-head appears sprung, from the effect of fid breaking yesterday; it is much strained, unfit to carry sail on spring, shows on both sides; port bumpkin is sprung, and spritsail gaffs require repairing; the *violent puff* that struck this ship did not reach the ships astern.' In answer to which, Phaeton was ordered to part company, for England, which she did forthwith.

"Now, if royals could spring the foremast yesterday, Phaeton had no right to carry sail the next day, and it was never reported until the second disaster; so I consider that it was sprung simultaneously with the other tremendous smash, for the head sea was of no ordinary description. We were nearly in the wind's eye of Phaeton. Curiously enough, in the only three breezes we have had, Phaeton has been each time disabled, and has also broken several topsail-yards, while Arethusa has never carried away a royal-sheet, or strained a rope-

* Phaeton, built 1848, by Mr. White; Prince Regent, 92, built 1823, as a 120, like Caledonia.

† Arrogant, steam-frigate, built 1848, by Mr. Fincham; Leander, 50, built 1848, by Mr. Blake.

yarn. The narrow vessels seem to roll far more than the broad ones; Dauntless* rolls fearfully. To-day, Nov. 23rd, a gale of wind swell, we started from order of sailing under close-reefed topsails; ran down four miles to leeward. I shook out two reefs; so did the others, Leander and Arrogant with much seeming reluctance; Prince Regent remained under treble-reefed topsails and courses. Arethusa set topgallant-sails, which none of the others did. *Signal, 'to take them in.'*

"In half an hour, signal, 'Optional; set topgallant-sails,' which we did immediately, followed afterwards by others, with reluctance; on which I shook out another reef, which they were very slow in following. There was a very heavy head sea on, and though the accidents to their topgallant-sails were very numerous, not a rope-yarn of ours was broken; and we ended by beating them upwards of 2½ miles dead to windward, in three hours.

"The Commodore received me with the greatest possible kindness, and was very warm in his eulogiums on the ship, for her stability, easiness, and handiness."

H.M.St.-V. THUNDERBOLT, 300-*h.p.*

Built at Portsmouth. Tonnage 1055.

The Thunderbolt was a vessel of the Virago class, launched by Sir W. Symonds, 13th January, 1842; under which year, in the early part of this work, a notice of her was omitted, by an oversight.

She was wrecked in the month of February, 1847, off Cape Receife, Algoa Bay.

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* Dauntless, steam-frigate, built 1847, by Mr. Fincham.

APPENDIX.

APPENDIX.

I. — Sir William Symonds's List of Ships and Vessels built or commenced by him, with their original Ratings.

1st Rates.

Guns.

120. *Prince of Wales (building), "altered per Admiralty Order."
116. Queen.
—. Royal Frederick (building).
—. *Victoria (building).
—. *Royal Sovereign.
—. Windsor Castle (building).
—. *Marlborough.

2nd Rates.

90. *Exmouth.
—. *Hannibal, "mutilated per Admiralty Order."
—. *Princess Royal, "ditto."
—. *Algiers.
—. *St. Jean d'Acre.
—. *Aboukir.
—. Albion.
80. Collingwood.
—. Vanguard.
—. *Goliath.
—. Superb.
—. *Centurion.
—. *Colossus.
—. *Majestic.
—. *Mars.
—. *Brunswick.
—. *Irresistible (building).
—. *Lion.
—. *Meeanee.
—. *Orion. [Launched at Chatham, Jan. 1855. Tonnage, 3281.]

3rd Rates.

Guns.

70. Boscawen, "mutilated per Admiralty Order."
—. Cumberland.

Frigates.—*4th Rates.*

50. Arethusa.
—. *Liffey (building).
—. Constance.
—. Vernon.
—. Octavia.
—. Sutlej.

5th Rates.

40. Active.
—. Pique.
—. Cambrian.
—. *Chesapeake.
—. Sybille.
36. Flora. [Launched at Devonport, 11 Sept. 1844. Tonnage, 1634.]

6th Rates.

28. Niobe.
—. *Tribune.
—. †Malacca.
—. Diamond.
26. Carysfort.
—. Cleopatra.
—. Vestal.
—. Creole.
—. Iris.
—. Juno.
26. Spartan.

* Since altered to screws. † Steam sloop.

Guns.
—. Amethyst.
—. Alarm.
18. Calypso.
—. Coquette.

CORVETTES.

18. Rover.
—. Arachne.
—. Terpsichore.
—. Daphne.
—. Dido.

BRIGS.—1*st Class.*

16. Helena.
—. Siren.
—. Jumna.
—. Atalanta.
—. Camilla.
—. Mosquito.

BRIGS.—2*nd Class.*

12. Harlequin.
—. Lily.
—. Racer.
—. Ringdove.
—. Sappho.
—. Serpent.
—. Snake (wrecked).
—. Wanderer.
—. Wolverene.
—. Columbine.
—. Grecian.
—. Persian.
—. Arab.
—. Fantôme.
—. Pilot.
—. Acorn.
—. Albatross.
—. Bittern.
—. Elk.
—. Heron.
—. Despatch.
—. Kangaroo.
—. Mariner.
—. Martin.
—. Liberty.
—. Squirrel.
—. Flying-Fish.

Guns.
12. Nerbudda. [Launched at Bombay, 1847. Tonnage, 445.]
—. Kingfisher.
—. Pantaloon.
—. Rapid.
—. Sealark.
—. Britomart.
—. Heroine.
—. Hound. [Launched at Deptford, 23 May, 1846. Tonnage, 360.]

SLOOPS RIGGED AS BRIGANTINES.

6. Pandora.
3. Bonetta.
–. Dart.
–. Dolphin.
–. Spy.

PACKET-BRIGS.

8. Alert.
–. Ranger.
6. Linnet.
–. Star.
–. Cygnet.
–. Ferret.
–. Philomel.
–. Express.
–. Swift.
–. Penguin.
–. Petrel.
–. Crane.

STEAM-VESSELS.

Horse-Power.
650. Avenger (wrecked).
560. Dragon.
540. Centaur.
515. Fury.
500. Bulldog.
—. Sphynx.
470. Vulture.
467. Sampson.
430. Gladiator.
420. Scourge.
410. Firebrand.
400. Retribution, "mutilated."

Horse-Power.	
400.	* Desperate.
400.	Devastation.
—.	Conflict.
378.	Inflexible.
350.	Caradoc.
—.	Megæra (wrecked).
320.	Cyclops.
—.	Gorgon.
312.	Merlin.
—.	Medusa.
—.	Medina.
300.	Virago.
—.	* Cormorant.
—.	Thunderbolt (wrecked).
280.	Vixen.
—.	Spiteful.
—.	Growler.
—.	Geyser.
—.	Styx.
—.	Vesuvius.
—.	Stromboli.
—.	Rosamond.
—.	Driver, } "ordered to be built of iron."
260.	Oberon, } "ordered to be built of iron."
—.	Triton, } "ordered to be built of iron."
—.	Antelope, } "ordered to be built of iron."
240.	Hecate.
—.	Hecla.
220.	Hermes.
—.	Hydra.
200.	Ardent.
—.	Polyphemus.
—.	Prometheus.
—.	Rattler.
—.	Alecto.
—.	Harpy (iron).
160.	Acheron.
150.	Torch (iron).
—.	Lizard ("original lost").
—.	Jackal (iron).
140.	Volcano.
136.	Blazer.
—.	Tartarus.
130.	Gleaner.
100.	Locust.

Horse-Power.	
100.	Dasher.
90.	Widgeon.
40.	* Teazer.
10.	* Minx.

Steam-Vessels on the Lakes of Canada.

200.	Cherokee.
90.	Minos.
60.	Mohawk.

Schooner.

Bermuda.

Yachts.

430.	Victoria and Albert (now Osborne.)
	Royal Adelaide (at Virginia Water).
10.	Bee.

Tenders.

Mercury.
Gipsy.
Sylvia.

Hoys, Transports, Lighters, etc.

At Woolwich.

Mooring Lighters. { No. 1. No. 2.

At Chatham.

Duck, lighter.
Rochester, lighter.
Bat, victualling-vessel.

At Sheerness.

Mooring Lighters. { No. 1. No. 2.

* Since altered to screws.

At Portsmouth.

Alpheus, tank-vessel.
Drake, lighter and tank-vessel.
Lively, sailing lighter.
Mooring Lighter, No. 6.
Ant, lighter.
Mary, victualling-lighter (Deptford).
Steam dredging-vessel.

At Plymouth.

Devon, lighter.
Cremill, victualling-vessel.
Hamoaze, lighter.

At Pembroke.

Fountain, Sinbad, } Lighters and tank-vessels.

Tank-vessel *at Malta.*

Tank-vessel *at Cork.*

II.—List of Surveyors of the Navy (from Haydn's *Dictionary of Dates*).

1660. Sir William Batten.
1667. Thomas Middleton.
1680. Sir A. Deane (see p. 113).
1688. Sir J. Tippetts.
1692. Edmund Dummer.
1699. David Furzer.
1706. William Lee.
1715. Sir Jacob Ackworth.
1746. Sir J. Allin or Allen.
1755. Thos. Slade & Wm. Bateley.
1765. Sir Thos. Slade and John Williams.
1771. Sir J. Williams; and two Assistants.
1778. Sir J. Williams and Edw. Hunt.
1784. Edward Hunt and Sir Jas. Henslow.
1793. Sir William Rule.
1806. Sir W. Rule and Sir Hen. Peake.
1813. Jas. Tucker and Sir Robert Seppings.
1832. Sir W. Symonds, June 9; and one Assistant.
1848. Sir B. W. Walker, Bt., Feb. 5; and two Assistants.

Sir T. Slade built (of ships *now on the Navy List*) the Victory 1765*, and Ramillies, 1785. His portrait is in the Model Room, Somerset House.

Sir J. Williams built the Warrior. *Mr. Hunt*, the Grampus.

Sir J. Henslowe built the Hibernia, Foudroyant, Warspite, Dreadnought (broken up 1857), Illustrious, York, Royal Oak, Dryad, Royal Sovereign yacht.

Sir W. Rule built the Caledonia, Britannia, Royal George, Neptune, Royal William, Waterloo, St. George, Trafalgar (not launched till 1841), Eagle, Isis, Apollo (troop ship), Impregnable, Havannah, Childers, Mastiff, Fame, Naiad, Nymphe, Owen Glendower, Maid-

* The Triumph, 74, now lazarette at Pembroke, built 1764 (from the French Invincible), is the oldest existing vessel in the Navy. The Impregnable carried the Duke of Clarence's flag, when the Allied Sovereigns visited Portsmouth, 23rd June, 1814. An old Impregnable was lost on the Wolsner, 19th Oct. 1799.

stone, Euryalus, Menai, Mersey, Wye, Tees, Dotterel, Pelican, Acute, and other 12-gun brigs.

Sir H. Peake built the Bellerophon, Rolla, and nine small 8-gun brigs; Sheldrake, Terror, Erebus, Plymouth and Royal George yacht; Badger, and eleven other 10-gun brigs. He was knighted at Portsmouth at the visit of the Allied Sovereigns. He built the "Forty Thieves" (copied from the French Courageant); but his first lines were altered by the Navy Board, and the vessels were contract built.

Sir R. Seppings built the Rodney, Nile, London, Calcutta, Castor, Andromache, Calliope, Conway, Tyne, Scout, Amphion, Dee, Phœnix, &c. He was formerly Master Shipwright at Chatham, and was a man of great sagacity in adopting practical improvements in ship-building: such as the Round Stern, first put to the Namur *razée*, 1805,—an improvement claimed by Rear-Admiral Lewis, Messrs. Lang, Blake, and several others, and superseded by the elliptical stern; the wood and slate sheds for covering ships' frames on the stocks; the plan of "blocking" a ship in dock, by means of wedge-pieces, in order to raise her, instead of lifting her bodily, as had been the custom; the chocks under a ship's beams,—which have been dispensed with; and, especially, the plan of *diagonal trussing*, which Raleigh long ago advised. It was first tried, 1800, in the Glenmore, and again on the Kent, 1805; but has been given up, as being open to this serious objection, that it lays a heavy burden on the weakest parts of a ship, viz. the parts towards the head and stern, where the strain is greatest.

III. The Museum at Somerset House, though begun by Sir R. Seppings, was so much improved and enlarged by his successor, that Sir W. Symonds may claim to be its real founder; and he continually manifested a strong and lively interest in its progress. To him, in particular, it is indebted for the botanical specimens of every kind of timber used in ship-building,—either collected by himself in his trips of inspection, or brought home at his request from different parts of the world. Here are the characteristic wood, flower, leaf, acorns, &c., of each variety of oak, pine, ash, beech, elm, hickory, larch, teak (the heaviest of woods), mahogany (remarkable for its buoyancy), cedar of Lebanon, New Zealand timber, &c., all under glass cases.*

* The Comet, the oldest steamer in the Navy, was built of mahogany, by Mr. Lang, 1822. Sabicu is a strong wood, 70 lbs. to the cubic foot, good for beams, especially with heavy guns overhead. Larch is a good dry wood, as proved by the Athol, built 1821, and, with only one repair, still afloat. The cowdri or cowri pines from New Zealand furnish the longest spars used in the Navy. Some trees are found 75 feet girth. They are cut down, squared, and stripped by the native traders, after being transported through the forests in a very ingenious manner, by a trough or tramway made of timber, from tree to tree, down to the water-side.

Among the models of ships, which number altogether about *three hundred*, are models of all the Surveyor's best ships,—the Queen, Vanguard, Albion, Vernon, Pique, &c. The Queen is shown fully rigged; and she and others are also given in sections, showing their internal fittings, the form of the bow, stern, &c. The Queen could carry 21 guns in her stern, and fire nearly as many from her bows.—Models of the Columbine and Pantaloon, the Surveyor's oldest vessels; and of the Pique, with the holes in her bottom, and her broken keel, with which she came across the Atlantic.— Models of the Victoria and Albert, royal yachts. That of the old one, now called the Osborne, as modelled by the senior modeller, Mr. Harvey, gained the prize at the Great Exhibition, 1851. The new Victoria and Albert is a beautiful vessel, like a dart, 300 feet by 40, able to run 17 or 18 knots an hour. She is here modelled, by Mr. Piercey, on a scale of ½ inch to the foot, with all her brass and metal work.—Models of the Arrogant, the first screw frigate; and of other vessels since the Surveyor's time,—the Duke of Wellington (a lengthened Queen), Agamemnon, Imperieuse, St. Jean d'Acre, &c., showing the improvements and alterations introduced under the present Surveyor.—Models of the Flying-Fish, Daring, and other experimental brigs of 1844; and of various ships built by Sir William's competitors and predecessors; among which are the Rodney, Ganges, Asia, &c., by Sir R. Seppings.—Models of the best French and Spanish Ships, taken from the enemy in various actions,—the Gibraltar, Canopus, Commerce de Marseilles, &c.

Besides these, are other models of ships which figure in our Naval annals,—as the Royal William or "Royal Billy" (full rigged), broken up 1813, when she was the oldest ship in the navy. She was found to have been built without chocks, on Seppings's plan.*—Nelson's ship, the *Victory*, which has been so thoroughly patched and repaired from time to time, that (like the Bucentaur) scarcely a single plank of the original vessel remains.—The Royal George, which sunk at Spithead, 20th August, 1782, when the late Sir P. Durham and a few others only were saved out of "eight hundred of the brave."— The old Victory, a handsomely gilt ship, lost 1744, off the Casquets, with Admiral Balchen on board.— The Royal Sovereign, built by Pett: her upper works were overlaid with beautiful gilt carvings from end to end, of which the exquisite *fac-simile* on the reduced model cost, they say, more than one artist many years' patient labour to complete.

There are also general models intended to show the old and new construction and fittings of ships, and of their various parts—hull, keel, rudders, masts, &c. The masts and spars (to scale), of all the ships in the Navy, as classified by Sir William Symonds. Models of old and new steam-engines, anchors, cables, &c.; of Admiral Schank's sliding keel;

Many specimens of wood are also preserved at The Refuge, the seat of Lady Symonds, Yarmouth, Isle of Wight.

* She was guardship at Spithead during the war; and it is a joke with sailors that she there "grounded on the *beef bones*" which, in the course of years, were thrown overboard by them after dinner.

and of the camels used by the Russians for floating their ships over bars. Model of a cutter, made entirely of little *pieces of timber* from the Victory, Temeraire, Alexander, Captain, and other old ships of war,—a most valuable relic. Figure-head of the old Royal Charlotte, said to be a good likeness of Queen Charlotte; who, with George III., visited her namesake after the 1st of June. She was Exmouth's flag ship at Algiers. Portrait of Sir T. Slade, formerly Surveyor of the Navy—the only portrait here!

These are but samples of the contents of this interesting Museum, which, being unique of its kind, well deserves, we may venture to say, the particular consideration and patronage of the Board of Admiralty. Its value would be much increased by the addition of portraits of the Surveyors and others, engravings of ships and machinery, and a library of books on Naval Architecture, and other appropriate subjects.

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